

Response to Comments

Draft Hanford Facility Dangerous Waste Permit, Revision 9 May 1 to Oct. 22, 2012

Draft Hanford Facility Dangerous Waste Permit, Single Shell Tanks Unit Revision 9 June 28 to Oct. 22, 2012

For the **Nuclear Waste Program**

Washington State Department of Ecology

Richland, Washington

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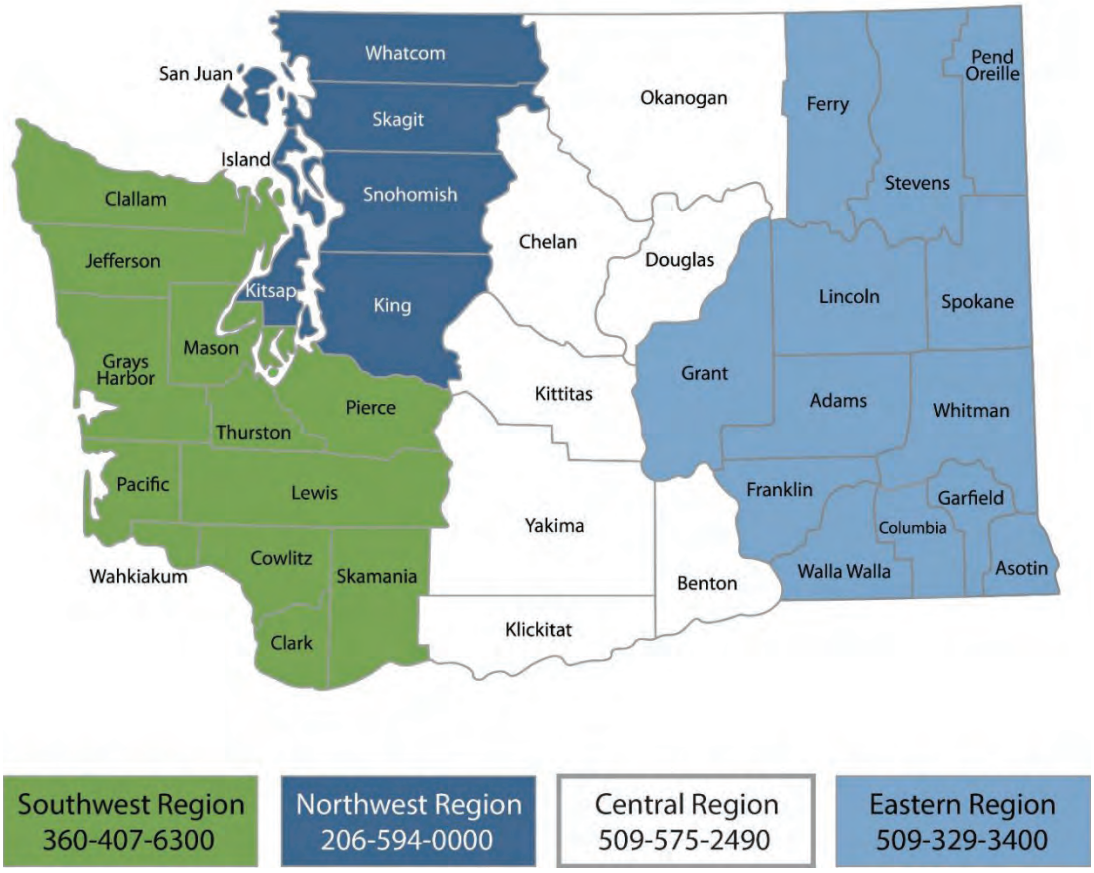
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Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Introduction

The Washington State Department of Ecology's Nuclear Waste Program (Ecology) manages dangerous waste within the state by writing permits to regulate the treatment, storage, and disposal of dangerous waste. When a new permit or a significant modification to an existing permit is proposed, Ecology holds a public comment period to allow the public to review the change and provide formal feedback. (See Washington Administrative Code [WAC] 173-303-830 for types of permit changes.)

The Response to Comments is the last step before issuing the final permit, and its purpose is to:

- Specify which provisions, if any, of a permit will become effective upon issuance of the final permit, providing reasons for those changes.
- Describe and document public involvement actions.
- List and respond to all significant comments received during the public comment period and any related public hearings.

This Response to Comments is prepared for:

Comment period	Draft Hanford Facility Dangerous Waste Permit, Revision 9, May 1, 2012, to Oct. 22, 2012 Draft Hanford Facility Dangerous Waste Permit, Single-Shell Tanks Unit Revision 9 June 28 to Oct. 22, 2012
Permit	Draft *Hanford Facility Dangerous Waste Permit,* Rev. 9
Permittees	U.S. Department of Energy
Original Issuance date	Sept. 28, 1994

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our webpage, Hanford Cleanup[3].

[3] https://www.ecology.wa.gov/Hanford

Reasons for revising the Hanford Sitewide Permit

The Hanford Sitewide Permit, Revision 9 permit renewal was held in accordance with WAC 173-303-806(11)(a) in 2012. The U.S. Department of Energy (Energy) submitted a permit application for the Hanford Sitewide Permit in 2004, and Ecology called the permit application complete. Ecology worked with the U.S. Environmental Protection Agency (EPA), and the permittees – Energy and its contractors – to prepare the Hanford Sitewide Permit, Rev. 9 (Rev. 9 Permit) renewal. Due to the amount of public, Tribal Nation, and permittee comments received during the Rev. 9 comment period, Ecology decided to revise the current Hanford Sitewide Permit into a revised renewal, Revision 9A.

Ecology is transmitting the updated draft for public comment in June 2026. This new draft will be called the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 9A* (draft Rev. 9A). A description of changes to draft Rev. 9A will be described in the Hanford Sitewide Permit fact sheet for draft Rev. 9A. The purpose is to have a compliant, enforceable, consistent, and implementable permit for the Hanford Site that is protective of human health and the environment. You are encouraged to submit comments during the upcoming comment period.

Comment period history

Public comment period for draft *Hanford Facility Dangerous Waste Permit, Rev. 9*
The draft Rev. 9 Permit went out for public comment May 1, 2012, through Oct. 22, 2012, for renewal following WAC 173-303-830(3) and WAC 173-303-840 regulations. The draft Rev. 9 Permit comprised of 37 unit groups, including operating, corrective action, closure, and post-closure unit groups at the Hanford Site. According to WAC 173-303-806(11)(a), final status permits should be renewed every ten years. Although the ten-year timeframe has been exceeded, Ecology has been working since 2004 with the Permittees to ensure we have a complete and enforceable permit.

Due to the size of the permit renewal, Ecology held a longer public comment period of 120 days. The public comment period was extended at the request of the public to 174 days. During the public comment period, Ecology received more than 5,000 comments from the public, Tribal Nations, and permittees.

- Ecology worked with the EPA to discuss a path forward for addressing the deficient information within the draft Rev. 9 Permit. The EPA provided input and recommendations to Ecology and those were addressed in comment response meetings.
- We worked with the permittees to incorporate supplemental information into the draft Rev. 9A Permit renewal to address comments and deficiencies identified during the comment period.
- Since we did call the permit complete prior to the Rev. 9 Permit renewal, we worked through every unit group, addendum, and document to make sure we addressed all

portions of the permit. Ecology worked to ensure that every comment was retained, recorded, and provided a response. If there are discrepancies, we apologize for this.
- Ecology responded to all public, Tribal Nation, and permittee comments.
- Documentation from the preparation of the revised renewal is included in Ecology's Administrative Record.

Public comment period for d*raft Hanford Facility Dangerous Waste Permit, Single Shell Tanks Unit, Revision 9*

In June 2012, the single-shell tank portion of the draft Rev. 9 Permit was transmitted for a 60-day public comment period that was held in parallel with the remainder of the draft Rev. 9 Permit public comment period. The public comment period was extended with the overall Rev. 9 Permit.

Public involvement actions

Ecology encouraged public comment on the Draft Hanford Facility Dangerous Waste Permit, Revision 9, during a 174-day public comment period held May 1, 2012, through Oct. 22, 2012. Comments were also accepted for the Draft Hanford Facility Dangerous Waste Permit, Single Shell Tanks Unit Revision 9 during the concurrent 60-day public comment period held July 1 – Oct. 22, 2012.

The following actions were taken to notify the public:

- Mailed a public notice announcing the comment period to 1,680 interested members of the public on the Hanford facility postal mail list.
- Distributed copies of the public notice to members of the public at Hanford Advisory Board meetings.
- Placed a public announcement display advertisement in the *Tri-City Herald* and *Willamette Week* on May 1, 2012.
- Emailed a notice announcing the start of the comment period to subscribers on Hanford-Info email list.
- Posted the comment period notice on the Washington Department of Ecology – Hanford's Facebook and Twitter pages.

Ecology held seven public hearings at the following times and places:

- May 15, 2012, 7pm at University Heights Community Center, 5031 University Way NE in Seattle, Washington
- May 16, 2012, 7pm at Jantzen Beach Red Lion Hotel, 909 North Hayden Island Drive, Portland, Oregon
- June 5, 2012, 6:30pm at Spokane City Council Chambers, W 808 Spokane Falls Blvd, Spokane, Washington
- June 6, 2012, 6:30pm at the Richland Public Library, 955 Northgate Drive, Richland, Washington

- August 7, 2012, 5:30pm at the Richland Public Library, 955 Northgate Drive, Richland, Washington. Also held virtually on GoToMeeting
- September 13, 2012, 7:30pm at Ambridge Center, 1333 Northeast Martin Luther King Jr. Blvd, Portland, Oregon
- September 19, 2012, Seattle Center Olympic Room, 305 Harrison Street, Seattle, WA

Approximately 120 members of the public attended, and 106 comments were collected. Hearing transcripts are in Appendix B of this document.

The Hanford Information Repositories located in Richland, Spokane, and Seattle, Washington, and Portland, Oregon, received the following documents for public review:

- Focus sheet
- Transmittal letter
- Fact Sheet for the proposed Hanford Facility Dangerous Waste Permit, Rev. 9
- Draft Hanford Facility Dangerous Waste Permit, Rev. 9 with individual fact sheets for each unit group

The following public notices for this comment period are in Appendix A of this document:

- Focus sheet
- Classified advertisement in the *Tri-City Herald*
- Notices sent to the Hanford-Info email list
- Notices posted on the Washington Department of Ecology – Hanford's Facebook and Twitter pages

Attachment 1: Comments and Responses

Description of comments:

Ecology accepted comments from May 1, 2012, through Oct. 22, 2012. This section provides a summary of comments that we received during the two concurrent public comment periods and our responses, as required by RCW 34.05.325(6)(a)(iii).

We worked to answer every comment we received, but there were several software changes, and a few comments may not have carried over.

The comments are separated into two sections: public comments and Energy's comments. The public comments are listed alphabetically. Energy's comments are listed by order of unit group. Each comment is addressed separately.

Public comments on the 324 Building

The 324 Building dangerous waste management units (DWMUs) were not included in the Rev 9 (2012) draft renewal of the Hanford Sitewide Permit. The unit was proposed to be incorporated into the Revision 8C Sitewide Permit through a Class 3 permit modification in 2016 and held a 66-day public comment period from July 5, 2016, through September 9, 2016. Ecology received 31 public comments, and the responses are contained in this Response to Comments document.

Ecology letter 23-NWP-099 describes the decision to transition the remaining 45-day public comment period required for a Class 3 modification to be integrated with the 120-day public comment period being conducted for the Rev 9A Renewal.

Public Comments and Responses

The public comments are listed alphabetically.

Commenter	Unit Group	Comment	Comment Response
Aaron Carpenter	General	I am writing to ask that you not accept any more nuclear waste at Hanford; It is already seeping into the ground... You have been digging holes and duping in barrels of nuclear waste; this causes cancer... When your kids get cancer they will have you to blame. Chief Seattle sold you the lands and you promised to take care of it.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Alexander Veritage	General	I'm Alexander Veritage and born and raised in Cascadia, the bioregion of this region. I just really don't know what completely to say. Every time I hear more about Hanford or the whole region or that whole area, it the rabbit hole goes deeper and deeper. Now, hearing about non-lined ditches was the -- how far are we going to go with this? It's just shocking. Eric Fromm, the famous psychoanalysis back in the 1950s talked about the necrophilic personality, the personality that loves death, the culture of death. And it sounds like we have a culture of death. We just want to cause more suffering, more illness and I'm shocked by this. I didn't know what I was going to say with this whole thing. I'm just shocked the more I hear about it. I mean, I thought I was well-informed about Hanford. I think one of my other concerns is that it's the lack of communication, not just to the public, but the lack of communication between different departments. The federal government, the military industrial complex, corporations, and then the departments within the State of Washington, the department probably to Oregon as well. I mean, and let's throw in Idaho while we're at it, because nobody brings that one up. It's just shocking. Would it be better if we had a separate country and got rid of the federal government [inaudible 24:23] worked in a different way? I don't know. Free Cascadia. But it's just shocking. So, anyway. Please, wake up. Communicate. So, take care.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. We recognize the difficulties in interagency communication and providing meaningful public outreach and engagement. Over the last several years, we've been working closely with the U.S. Department of Energy and the U.S. Environmental Protection Agency to improve public involvement work between the agencies. Additionally, our agency is identifying and implementing new public involvement initiatives to better reach and engage with the public, including underserved and overburdened communities facing the highest risk from Hanford contamination persistent delays.
Alisa Huckaby	General	See Attachment 2.	Since the time of this original comment in 2012, the groundwater monitoring requirements and the associated dangerous waste permit conditions for the LERF basins have been reevaluated. Most recently, the groundwater monitoring plan and associated permit conditions were updated to reflect a revised monitoring approach to address pending new waste streams and add a monitoring well in the 2022 class 2 modification 8C.2021.3F based on the 2019 groundwater monitoring report (DOE/RL-2019-65, 2020).

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	General	See Attachment 2.	Since the time of this original comment in 2012, the groundwater monitoring requirements and the associated dangerous waste permit conditions for the LERF basins have been reevaluated. Most recently, the groundwater monitoring plan and associated permit conditions were updated to reflect a revised monitoring approach to address pending new waste streams and add a monitoring well in the 2022 class 2 modification 8C.2021.3F based on the 2019 groundwater monitoring report (DOE/RL-2019-65, 2020).
Alisa Huckaby	General	It is this commenter's understanding that Ecology has either negotiated permit conditions with the permittee or sought the permittee's concurrence of draft permit conditions prior to the public comment period. WAC 173-303-840 identifies procedures for decision making. Specifically, after the department determines the permit application is complete, the department prepares a draft permit. After the permit application is deemed complete by the department, it is this commenter's opinion that it is inappropriate to draft permit conditions with the permittee's undue influence, to negotiate draft permit conditions with the permittee, or to seek the permittee's concurrence of the draft permit conditions prior to the public comment period. It is this commenter's understanding that at least one Ecology staff drafted over 100 pages of groundwater permit conditions for no fewer than a dozen Hanford RCRA TSDs. It is also this commenter's understanding that when Ecology's management (section and project managers) shared the draft permit conditions with USDOE, USDOE threatened to challenge the permit if those conditions were used. Subsequently, none of the 100+ pages of groundwater permit conditions were used. In this way, Ecology has allowed the permittee (USDOE) undue and inappropriate influence which has negatively affected the quality of the draft permit conditions. At a minimum, Ecology's actions are inappropriate. Furthermore, Ecology's actions are likely unethical. It is requested that Ecology formally ask the Ethics Board (http://www.ethics.wa.gov/) if Ecology's behavior in generating this draft permit is appropriate and ethical. In addition, it is requested that Ecology provide the Ethics Board a copy of the draft SST groundwater permit conditions that weren't included in the draft permit and a copy of the SST groundwater permit conditions that were included in the draft permit as an example of how Ecology's negotiations with the permittee influenced Ecology's draft permit. If the Ethics Board advises	We agree that the Hanford Site-wide Permit should be an equivalent, consistent, compliant and implementable. Since the 2012 Hanford Site-wide Permit, Rev. 9 renewal, Ecology developed a robust project management plan to address the revisions that needed to be made on the draft renewal. Staff at the Nuclear Waste Program developed guidance documents for each portion of the permit using dangerous waste regulations and 95-402, Dangerous Waste Permit Application Guidance, as well as additional guidance documents, as appropriate. Each unit group in the Hanford Site-wide Permit and each addenda within the unit group was reviewed against the suite of guidance documents. Ecology and the Permittees held workshops to address the deficiencies and changes that needed to be made within the permit. Permit Conditions were identified and updated for each unit group. Standard conditions and attachments were also updated with guidance from EPA. Issues were elevated through a specific decision-making process to ensure they were resolved or a decision was made. For more information on the project management plan and process that Ecology followed to create the revised renewal, please review the Hanford Site-wide Permit, Rev. 9A Fact Sheet.

Commenter	Unit Group	Comment	Comment Response
		that the behavior is inappropriate or unethical, it is requested the draft permit be withdrawn and re-drafted without allowing the permittee undue influence, without sharing draft conditions with the permittee prior to the public comment period, and without allowing the permittee to threaten or coerce.	
Alisa Huckaby	General	As an Ecology employee, this commenter has heard Ecology management justify issuing “an imperfect permit” on the basis that “an imperfect permit is better than no permit at all”. This commenter respectfully disagrees. This draft permit is so flawed that RCRA closure performance standards (i.e., soil cleanup) and groundwater protection standards (i.e., groundwater protection and/or remediation) are either waived or greatly reduced. The overall affect is a significant reduction in environmental cleanup and environmental protection. The majority of this commenter’s comments support this assertion. As a taxpayer, I appreciate there may not be enough monetary resources for the permittee to comply with all applicable RCRA requirements. However, it is disingenuous for Ecology to say or imply that the draft permit is protective or even that it is better than the previous version. If Ecology cannot or will not uphold RCRA requirements, Ecology’s fact sheets should clearly identify which RCRA requirements are being waived and/or reduced and a basis for such waivers/reductions be provided. In other words, Ecology should clearly acknowledge the permit’s deficiencies and provide a justification for those deficiencies. If Ecology is unwilling to clearly identify which RCRA requirements are being waived and/or reduced and to provide the necessary justification, Ecology should forfeit its RCRA authorization.	Ecology has rewritten the SST permit conditions and revised draft addenda to make sure all regulatory requirements are met.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	General	It is this commenter's understanding that a comment must be made on a particular draft permit condition to allow Ecology to fix the condition in response. Therefore, I am submitting numerous comments, hoping that Ecology will fix the grossly flawed draft permit. It is very important that Ecology fix the draft permit because the greatly reduced or waived requirements set a negative precedent for Washington State and the U.S. Department of Energy complex. As such, if this permit is not fixed, environmental protection standards across Washington State and the U.S. Department of Energy complex will be significantly compromised.	We agree that the Hanford Site-wide Permit should be an equivalent, consistent, enforceable and implementable. Since the 2012 Hanford Site-wide Permit, Rev. 9 renewal, Ecology developed a robust project management plan to address the revisions that needed to be made on the draft renewal. Staff at the Nuclear Waste Program developed guidance documents for each portion of the permit using dangerous waste regulations and 95-402, Dangerous Waste Permit Application Guidance, as well as additional guidance documents, as appropriate. Each unit group in the Hanford Site-wide Permit and each addenda within the unit group was reviewed against the suite of guidance documents. Ecology and the Permittees held workshops to address the deficiencies and changes that needed to be made within the permit. Permit Conditions were identified and updated for each unit group. Standard conditions and attachments were also updated with guidance from EPA. Issues were elevated through a specific decision-making process to ensure they were resolved or a decision was made. For more information on the project management plan and process that Ecology followed to create the revised renewal, please review the Hanford Site-wide Permit, Rev. 9A Fact Sheet.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	Parts I & II	Condition II.F: It is recommended the permit include the following condition: The Permittees shall comply with the groundwater monitoring requirements of WAC 173-303-645. This Condition shall apply to Hanford site wells the Permittees use for groundwater monitoring programs. Where releases from Units subject to this Permit have been documented or confirmed by investigation, or where sufficient groundwater is not available, the Permittees shall evaluate vadose zone monitoring for integration with groundwater monitoring, or as the sole means of monitoring. The Permittees shall evaluate wells located downgradient of units which have been documented or confirmed by investigation, or where vadose zone monitoring is proposed for integration with groundwater monitoring for the purpose of determining the extent of contamination and incorporation of these wells into the unit-specific groundwater monitoring plan. If agreed to by Ecology, integration of groundwater and vadose zone monitoring, for reasons other than this Permit, may be accommodated by this Permit. Results from other investigation activities shall be used whenever possible to supplement and/or replace sampling required by this Permit. Condition II.F should include requirements for use of vadose zone monitoring at units where groundwater is insufficient or not available (e.g., LERF, LLBG Trench 94, etc.).	Ecology is requiring vadose zone monitoring on certain units where the groundwater table has been declining. One of these units is LLBG for Trench 31 and 34. The permit specifies “The Permittees will provide groundwater water protection and monitoring in accordance with the requirements established in unit-specific chapters of this Permit.” Under each unit-specific chapter of a regulated unit, groundwater monitoring and protection will be conducted under WAC 173-303-645.
Alisa Huckaby	Parts I & II	Condition II.F: The purgewater management plan appears to no longer be part of the permit. Ecology should clearly identify how purgewater will be managed. If Ecology does not specify how purgewater will be managed, the permittee may dump purgewater at the well head. Clearly, it would be inappropriate to manage contaminated purgewater in this fashion.	Attachment 10, "Strategy for Handling and Disposing of Purgewater" is included in the Hanford Site-wide Permit, Rev. 9A. The document was updated to include the RCRA portions of purgewater management plan and to remove the CERCLA portions.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	General Comment: It is this commenter's concern that the draft 1301-N LWDF permit conditions were not peer reviewed by the appropriate Ecology staff prior to being released for public review and comment. As such, due to the numerous deficiencies and general unenforceability of the permit, Ecology (at taxpayer's expense) will spend significant time and resources to respond to the numerous comments and to revise the flawed conditions and addendums. Ecology should revise its process for drafting RCRA permits to allow specialists to provide input and positively affect such Ecology products.	Thank you for the concern. Ecology is developed guidelines for permit production that allow for increased input from staff. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Closure Conditions V.2.B: The conditions do not specify closure performance standards of WAC 173-303-610(2). The permit conditions should specify closure performance standards. In addition, because Condition II.J does not cite WAC 173-303-610(2), no closure performance standards are specified. Include closure performance standards of -610(2) in the 1301-N LWDF V.2.B closure conditions.	No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	WAC 173-340-747 specifies how to derive soil concentrations for groundwater protection. Using the MTCA three-phase partitioning model, soil concentrations for any dangerous waste constituent may be derived using the provided equations. For example, to derive soil concentrations of nitrate for groundwater protection the following parameters for Equation 747-1 may be used: CW (Groundwater cleanup level established under WAC 173-340-720) = 45,000 µg L; UCF (unit conversion factor) = 1 mg/1,000 µg; DF (Dimensionless dilution factor for saturated vadose zone which is “periodically re-wetted”) = 1; Kd (Distribution coefficient for nitrate) = 0 L/kg; ΘW (Water-filled soil porosity for saturated vadose zone which is “periodically re-wetted”) = .43 ml water/ml soil; Θa (Air-filled soil porosity for saturated vadose zone which is “periodically re-wetted”) = 0 ml air/ml soil; CS (soil concentration for groundwater protection) = 12.89 mg/kg (12,890 µg/kg). From the U.S. Dept. of Energy’s Environmental Dashboard application (http://environet.hanford.gov/eda/), soil nitrate concentrations in borehole samples collected from beneath the 1301-N LWDF (i.e., at 199-N-186 and 199-N-187) are above 12,890 µg/kg. Furthermore, groundwater nitrate concentrations from 199-N-186 (investigation borehole through crib completed as groundwater monitoring well) are well above the nitrate MCL (45,000 µg/L). Clearly, soil nitrate concentrations occurring in the vadose zone (in and near the periodically re-wetted zone) beneath the 1301-N LWDF are not protective of groundwater. As such, it may be concluded that WAC 173-303-610(2) closure performance standards have not been satisfied. Therefore, the 1301-N LWDF should be closed “in place” as a RCRA landfill with a RCRA cap and satisfying closure requirements of WAC 173-303-610(2) and -650(6).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Fact Sheet: The fact sheet should identify all dangerous waste constituents (e.g., nitrate) remaining in the vadose zone that do not satisfy WAC 173-303-610(2) closure performance standards. In other words, Ecology staff knowledgeable with WAC 173-340-747 should evaluate all available data to determine if other waste constituents remain above concentrations protective of groundwater. Also, the fact sheet should clearly identify that the basis for requiring a final RCRA cover that complies with the requirements of WAC 173-303-650 is the existence of waste constituents in the vadose zone (beneath waste disposal site)above concentrations protective of groundwater.	The fact sheets are designed to provide a high level overview of each unit, not an in-depth explanation of process and resulting contamination. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Closure Condition V.2.B.1.b: The permit condition requires submittal of “an integrated groundwater monitoring plan” but does not specify or define what the plan must contain. As such, the permit condition is poorly crafted. Unless the permit specifies what the integrated groundwater monitoring plan must contain, it is entirely up to the permittee to “define” what such an integrated groundwater monitoring plan will include and which requirements will be satisfied. If the permittee does not agree with Ecology on what the integrated groundwater monitoring plan should contain, it could take years before the plan is approved and the permit is modified to incorporate the plan.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Closure Conditions V.2.B.1.b and V.2.E.3: The permit condition requires submittal of “an integrated groundwater monitoring plan” “no later than the date imposed by milestone M-15-62-T01. As milestone M-15-62-T01 appears to be under negotiation to be moved out, this will mean the permittees will continue interim status groundwater monitoring even longer. As this is a final RCRA permit for this unit, this is inappropriate and does not satisfy WAC 173-303-645 requirements. The permit conditions should be re-written to clearly specify the contents of the groundwater monitoring plan that, at a minimum, satisfies WAC 173-303-645(3), (4), (5), (6), and (7) and that will be submitted to Ecology within 90 days of the effective date of the permit.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Closure Condition V.2.B.2 and Addendum H: The draft condition requires installation of a final cover. However, Addendum H appears to offer the permittees a closure selection menu. Therefore, the closure selection menu directly contradicts Condition V.2.B.2. Addendum H should be completely re-written to agree with Condition V.2.B.2 and to satisfy the closure performance standards of WAC 173-303-610(2).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Addendum H: Most concerning about Addendum H is the closure selection menu and the allowance of MTCA Method C and “modified closure” provided by the undefined “PRES-6 and MCRIS-6” and “MCRIS-7” options. Neither “modified closure” nor MTCA Method C satisfy RCRA closure performance standards of WAC 173-303-610(2). Addendum H should be entirely re-written to agree with Condition II.J and WAC 173-303-610(2).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Post-Closure Condition V.2.C.2: The condition requires the permittees to comply with a post-closure plan upon certification of unit closure. The closure conditions and Addendum H as currently written will clearly allow the unit to be “clean closed” (to MTCA method C cleanup levels and a non-defined “modified closure”). Due to Addendum H’s closure option menu, “clean closure” is easily attainable rendering Condition V.2.C.2 meaningless and unenforceable.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E: The requirements of -645 should be specified in this permit. WAC 173-303-645 clearly identifies what the department will specify in the facility permit. Condition V.2.E does not specify the following: dangerous constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), or compliance period (-645(7)). Furthermore, Condition V.2.E.1 does not even indicate which groundwater monitoring program is applicable. It should be noted that once the RCRA permit is issued, the permittees may use the permit as a “shield” against WAC requirements. Therefore, it is all the more important that the permit specify standards and requirements that are being imposed. Otherwise, the permit is unenforceable. As written, Condition V.2.E in no way, shape, or form, ensures groundwater protection standards will be satisfied. It is this commenter’s understanding that Ecology’s Nuclear Waste Program employees 6 licensed hydrogeologists and not one of them provided a peer review of Condition V.2.E.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Condition V.2.E.1: A 1996 interim status groundwater monitoring plan is referenced in this condition. It is incredible that Ecology did not get an updated groundwater monitoring plan for the 1301-N LWDF to include in this permit. Because the 1996 plan is so out-of-date and deficient, Ecology should not have determined that USDOE's permit application was "complete". This commenter interprets the use of the 1996 groundwater monitoring plan as an indication that RCRA groundwater protection is not a high priority for Ecology.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E.2: WAC 173-303-645 requires the department to specify which dangerous constituents (which metals and which anions) and their concentration limits. Condition V.2.E.2 should be re-written for completeness and enforceability.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E.2.m: The well identification is: 199-N-186.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E.2.n: The well identification is: 199-N-187.	he 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Condition V.2.E.2.o: The well identification is: 199-N-182.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E.2.p: The well identification is: 199-N-184.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Condition V.2.E.4: The condition requires the permittees to “evaluate the effectiveness of the 100-NR-2 remedy for groundwater”. This permit does not specify a remedy for groundwater releases from the 1301-N LWDF. Per WAC 173-303-645, the requirement should be specific to RCRA constituents associated with the 1301-N LWDF. As written, the condition is meaningless and unenforceable.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Addendum D: The groundwater monitoring plan is so out-of-date that it describes groundwater pump-and-treat operations. Since the groundwater monitoring plan was issued, the 100-NR-2 pump-and-treat system has been shut down and the 100-K pump-and-treat system has been expanded into the 100-N Area. Needless to say, the potentiometric level description in the 1996 groundwater monitoring plan is out-of-date. In addition, during the last 16 years, there has been significant progress in conceptual site model descriptions of contaminant transport in the 100-N Area. Clearly, USDOE's permit application was incomplete for the 1301-N LWDF. This commenter interprets the use of the 1996 groundwater monitoring plan as an indication that RCRA groundwater protection is not a high priority for Ecology and that Ecology has no will to either impose or enforce RCRA requirements.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1301-N	Addendum D: How the requirements of -645 will be satisfied should be specified in the addendum. The addendum should describe and/or specify the following: dangerous constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), or compliance period (-645(7)). Note: certain statements in Addendum D discuss conditions associated with the 1325-N LWDF (e.g., Section D.2.1). As this permit addendum is about the 1301-N LWDF, it should only speak to the 1301-N LWDF.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1301-N	Condition V.2.E.3: The condition requires submittal of an integrated RCRA/CERCLA groundwater monitoring plan. Due to the deficiencies associated with the Groundwater Monitoring Plan for the 1301 N, 1325 N, and 1324 N/NA Sites (Hartman 1996b), Condition V.2.E.3 should specify elements to be included in the plan that will address those deficiencies. As an example, the 2010 groundwater annual report identifies groundwater sample collection can affect contaminant concentration by the following: "As suggested by the rapid changes in groundwater concentrations that may be the result of changes in water table elevation and river stage, it is apparent that the timing of groundwater sample collection plays a significant role in determining the uranium concentration for the sample. Thus, concentration patterns shown in groundwater plume maps contain bias in regard to representing aquifer conditions. Bias is also introduced by the different construction features of the various monitoring wells and aquifer tubes that make up the groundwater monitoring network…." Condition V.2.E.3 should require USDOE to address such bias by clearly identifying when sampling will occur in relation to river stage. Condition V.2.E.3 should also require USDOE to address dilution that is very likely occurring due to monitoring well construction features (i.e., long screen lengths).	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	General Comment: The fact sheet indicates a closure certification was submitted to Ecology and that the permit “sets forth the post-closure and groundwater monitoring requirements for this unit”. The fact sheet also indicates the permittees will submit a closure plan. At a minimum, the fact sheet appears to contradict itself. It is this commenter’s concern that neither the fact sheet nor the draft permit conditions were peer reviewed by the appropriate Ecology staff prior to being released for public review and comment. Due to the deficiencies associated with the 1325-N LWDF unit-specific conditions and addendums, Ecology should revise its process for drafting RCRA permits to allow specialists to provide input and positively affect such Ecology products. As such, due to unclear fact sheet and the numerous deficiencies and general unenforceability of the permit, Ecology (at taxpayer’s expense) will spend significant time and resources to respond to the numerous comments and to revise the flawed fact sheet, conditions, and addendums.	Ecology developed a process to easily determine deficiencies within permit submittals for future use. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Fact Sheet and Permit conditions: The 1325-N LWDF fact sheet does not agree with the 1325-N permit conditions. The Fact sheet indicates the permittees will submit a closure plan and the permit conditions are silent about a closure plan. The basis for placing the 1325-N LWDF in post-closure is requested. The fact sheet does not provide the basis, and for all intents and purposes, administratively 1301-N LWDF and 1325-N LWDF are identical as contamination sources (i.e., nitrate [and possibly other RCRA waste constituents]) and for releases that have negatively impacted groundwater.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	1325-N LWDF Fact Sheet: The permit conditions do not require a RCRA cap. Ecology’s technical and regulatory basis for not requiring a RCRA cap are requested to be placed in the fact sheet.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A RCRA cap will not be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Fact Sheet and Condition V1.3.B.2: The fact sheet and Condition V1.3.B.2 indicate and require a final status integrated groundwater monitoring plan will be submitted 6 months after the 100-N Area ROD is issued. This plan submittal date is	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	General Comment: It is this commenter's concern that the draft 1325-N LWDF permit conditions were not peer reviewed by knowledgeable Ecology staff prior to being released for public review and comment. As such, due to the numerous deficiencies and general unenforceability of the permit, Ecology (at taxpayer's expense) will spend significant time and resources to respond to the numerous comments and to revise the flawed conditions and addendums. Ecology should revise its process for drafting RCRA permits to allow specialists to provide input and positively affect such Ecology products.	Thank you for the concern. Ecology developed guidelines for permit production that allow for increased input from staff. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Part VI, Unit Description: The description does not identify vadose zone waste constituents that are causing groundwater contamination (i.e., nitrate). Waste constituents at depth (i.e., beneath the extent of waste site excavation) are causing groundwater contamination. The basis for placing the 1325-N LWDF has not been provided. Until Ecology staff knowledgeable with MTCA (WAC 173-340-747) have evaluated all available data associated with potential contamination emanating from the 1325-N LWDF (i.e., vadose zone beneath the extent of waste site excavation), Ecology should not place the unit in Part VI. The 1325-N LWDF should be placed in Part V (closure) until Ecology determines that a RCRA cap is not needed.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Addendum K: Addendum K states: “Because it is uncertain, whether postclosure requirements would involve modified closure requirements or landfill requirements, actions necessary to comply with both closure options are presented”. This statement represents the basis for placing the 1325-N LWDF in Part V of the permit rather than in Part VI. To explain, landfill requirements may be applicable. The 1325-N LWDF should be placed in Part V (closure) until Ecology determines that a RCRA cap is not needed.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A RCRA cap will not be required under the Dangerous Waste Regulations after clean closure. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K: Addendum K states: “Because it is uncertain, whether postclosure requirements would involve modified closure requirements or landfill requirements, actions necessary to comply with both closure options are presented”. Neither WAC 173-303-610(2) nor Condition II.J provides for a “modified closure” (i.e., no standards are defined for “modified closure”). Addendum K should be entirely re-written to agree with Condition II.J and WAC 173-303-610(2).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K, Section K.3.1: The unit description indicates there is groundwater contamination from wastes disposed at the 1325-N LWDF. However, Addendum K indicates a “detection-monitoring program” in accordance with WAC 173-303-645(9) will be implemented. Due to releases from the 1325-N LWDF that have negatively affected groundwater quality, a compliance monitoring program in accordance with WAC 173-303-645(10) should be implemented.	USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Addendum K, Section K.3.2: Addendum K states: “Repairs are made according to approved contractor procedures.” This statement represents a non-enforceable statement and should be replaced by an identification of which procedures have been approved by Ecology and cite the appropriate WAC that will be satisfied (i.e., WAC 173-160).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K, Section K.3.2: Addendum K states: “Subsurface inspection and maintenance is performed on a 3- to 5-year schedule, or as needed to repair problems identified during sampling.” This statement represents a non-enforceable statement and an out-of-date schedule and should be replaced by meaningful criteria (e.g., well re-development due to elevated turbidity conditions noted during sampling, camera inspection due to elevated metal detections, etc.).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K, Section K.3.2: “If a monitoring well becomes unsuitable for use, the monitoring program will be reevaluated to determine if a new or existing well should be substituted.” This statement represents a non-enforceable statement and should be replaced by an identification that Ecology’s approval will be obtained to use a new or existing well as a substitute.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K, Section K.3.2: “If a monitoring well becomes unsuitable for use, the monitoring program will be reevaluated to determine if a new or existing well should be substituted.” This statement represents a non-enforceable statement and should be replaced by an identification that Ecology’s approval will be obtained to use a new or existing well as a substitute.	Ecology seeks well substitution when a well fails to provide its attended usage. When wells are replaced they are done so with Ecology’s approval. A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum K, Section K.7: Addendum K states: “No later than 60 days after completion of the postclosure care period, DOE-RL will submit to Ecology a certification of completion of postclosure care.” Neither the addendum nor the permit identify the length of the postclosure care period rendering the statement meaningless. Addendum K should be re-written placing the 1325-N LWDF in closure (Part V) and include a schedule for when a closure plan will be submitted.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Condition VI.3.C.1: “All waste analysis required by this chapter will be conducted according to the approved sampling and analysis plan.” The permit condition should include a document reference to the approved SAP.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A SAP will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Condition V1.3.D: A 1996 interim status groundwater monitoring plan is referenced in this condition. It is incredible that Ecology did not get an updated groundwater monitoring plan for the 1325-N LWDF to include in this permit. Because the 1996 plan is so out-of-date and deficient, Ecology should not have determined that USDOE’s permit application was “complete”. This commenter interprets the use of the 1996 groundwater monitoring plan as an indication that RCRA groundwater protection is not a high priority for Ecology.	USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Condition VI.3.D.2: WAC 173-303-645 requires the department to specify which dangerous constituents (which metals and which anions) and their concentration limits. Condition V.2.E.2 should be re-written for completeness and enforceability.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Condition VI.3.D.2.g: The well identification is: 199-N-188.	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Condition VI.3.D.3: The condition requires the permittees to “evaluate the effectiveness of the 100-NR-2 remedy for groundwater”. This permit does not specify a remedy for groundwater releases from the 1301-N LWDF. Per WAC 173-303-645, the requirement should be specific to RCRA constituents associated with the 1301-N LWDF. As written, the condition is meaningless and unenforceable.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. The condition will be deleted. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Addendum D: The groundwater monitoring plan is so out-of-date that it describes groundwater pump-and-treat operations. Since the groundwater monitoring plan was issued, the 100-NR-2 pump-and-treat system has been shut down and the 100-K pump-and-treat system has been expanded into the 100-N Area. Needless to say, the potentiometric level description in the 1996 groundwater monitoring plan is out-of-date. In addition, during the last 16 years, there has been significant progress in conceptual site model descriptions of contaminant transport in the 100-N Area. Clearly, USDOE’s permit application was incomplete for the 1325-N LWDF. This commenter interprets the use of the 1996 groundwater monitoring plan as an indication that RCRA groundwater protection is not a high priority for Ecology and that Ecology has no will to either impose or enforce RCRA requirements.	USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure.” 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1325-N	Condition VI.3.D: The requirements of -645 should be specified in this permit. WAC 173-303-645 clearly identifies what the department will specify in the facility permit. Condition VI.3.D does not specify the following: dangerous constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), or compliance period (-645(7)). Furthermore, Condition VI.3.D does not even indicate which groundwater monitoring program is applicable. It should be noted that once the RCRA permit is issued, the permittees may use the permit as a “shield” against WAC requirements. Therefore, it is all the more important that the permit specify standards and requirements that are being imposed. Otherwise, the permit is unenforceable. As written, Condition VI.3.D in no way, shape, or form, ensures groundwater protection standards will be satisfied. It is this commenter’s understanding that Ecology’s Nuclear Waste Program employees 6 licensed hydrogeologists and not one of them provided a peer review of Condition VI.3.D.	USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1325-N	Condition VI.3.D.4: The permit condition requires submittal of “an integrated groundwater monitoring plan 6 months after the Record of Decision for the 100-NR-1 Operable Unit is issued”. As TPA milestones appear to be under negotiation to be moved out, this will mean the permittees will continue interim status groundwater monitoring even longer. As this is a final RCRA permit for this unit, this is inappropriate and does not satisfy WAC 173-303-645 requirements. The permit conditions should be re-written to require a RCRA compliant groundwater monitoring plan within 6 months of the effective date of the permit. In addition, the permit conditions should be re-written to clearly specify the contents of the groundwater monitoring plan that, at a minimum, satisfies WAC 173-303-645(3), (4), (5), (6), and (7).	USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	1. Fact Sheet: The fact sheet does not acknowledge chlorinated hydrocarbon releases from the 300 APT that have contaminated groundwater. The following information is submitted so that Ecology may acknowledge groundwater contamination in the fact sheet and can craft meaningful permit conditions to address the groundwater contamination: Chlorinated hydrocarbons in well 399-1-16B have exceeded drinking water standards since construction in 1987. The DNAPL contaminant source, apparently associated with the 300 Area Process Trenches (300 APT), has a high potential for contributing significant quantities of vinyl chloride to the Columbia River. This river contamination would be difficult to detect because it would enter the river off shore where the river bed intersects the Ringold lower mud, which forms the base of the unconfined aquifer. Well 399-1-16B, located between the 300 APT and the Columbia River, has exhibited elevated concentrations of chlorinated hydrocarbons since its completion in 1987. Well 399-1-16B is part of a well cluster and is screened at the bottom of the unconfined aquifer. Initially the principal contaminants were trichloroethene and trans-1,2-dichloroethene. Trichloroethene has decreased steadily during the monitoring period, dropping below its MCL (5 µg/L) in 1999. Trans-1,2-dichloroethene was present in the 50 to 140 µg/L range.	The past/original remedy for remediating groundwater contamination in Hanford's 300 Area was natural attenuation. After many years of trying this approach it was determined that it was not working to satisfaction. Therefore, Hanford (EPA is the lead for the 300 Area and is heading up the process) is currently implementing the CERCLA process to evaluate the need for further investigation and remediation for both soil and groundwater in the 300 Area, and to identify the best remedial strategy. The CERCLA process consisted of: 1) a Remedial Investigation (RI) to further investigate the nature and extent of the problem; 2) a Feasibility Study (FS) to identify and study feasible alternatives for remediating the 300 Area soil and groundwater; 3) a Proposed Plan (PP) to propose the best remedial alternative based on the data and the studies; 4) a public comment period on the PP to allow the public to express their interests; 5) and a Final Record of Decision (ROD) which legally obligates the Department of Energy to implement the selected remedies. The RI/FS was completed in February 2013 and an Addendum to the RI/FS was completed in July 2013. This work included extensive additional studies into the extent of chlorinated hydrocarbons in the groundwater, the existence of DNAPL, further characterization of soil sources which potentially contribute contamination to groundwater, and the impacts to the Columbia River. The PP was finalized in July 2013 and a public comment period was conducted from July 15, 2013 through September 16, 2013. The final ROD for 300 Area remediation was issued in November 2013.
Alisa Huckaby	300A	However, in 1991 trans-1,2-dichloroethene dropped to very low concentrations and was replaced by cis-1,2-dichloroethene. Cis-1,2-dichloroethene increased between 1991 and 1996 and since that time has remained in the 120 to 200 µg/L range. The MCL for cis-1,2-dichloroethene is 70 µg/L. The most probable source of chlorinated hydrocarbon contamination in well 399-1-16B is chlorinated hydrocarbons disposed in the 300 APT in 1982 and 1984. Cline et al. (1985) reported two releases of tetrachloroethene (perchloroethylene) to the 300 APT. A release of 120 gal (454 L) occurred on November 4, 1982 and a release of 20 gal (76 L) occurred on July 6, 1984. What else may have been released along with the tetrachloroethene and the accuracy of the release numbers is uncertain. Cline et al. (1985) reported that the highest groundwater concentration (1,840 µg/L) occurred in well 399-1-5 about 5 days after the	The 300 APT dangerous waste RCRA permit was written such that Ecology has the opportunity to review and comment on the CERCLA remedy to be sure that Ecology agrees with it. Due to the extensiveness and thoroughness of the CERCLA process that was conducted, Ecology expects that they will agree with the selected remedy and process. Ecology further believes that it makes sense to study and pursue one remedy for the 300 Area groundwater and soils rather than to have a duplication of effort (CERCLA and RCRA). Now that the process has been completed, Ecology will ensure that the CERCLA remedy selected meets the dangerous waste requirements of RCRA. If Ecology believes that their interests are not being met, in accordance with Permit Condition II.F.2, Ecology may require another or additional remedial measures via the permit. Thus, the work that is being requested by this comment is already being done. It is Ecology's hope and intent that this effort does not have to be duplicated which would be a waste of tax payer money that could be much better used to address higher priority concerns on the Hanford Site.

Commenter	Unit Group	Comment	Comment Response
		first release. The resultant plume was traced through a number of other wells in the area and it was estimated that the peak concentration moved at approximately 35 ft/d (10.7 m/d).It should be noted that all of the early spill data was derived from wells monitoring the top of the aquifer and thus reflect only what was dissolved into groundwater while the contaminants were near the top of the aquifer. Thus the initial tetrachloroethene plume has slowly degraded, first to trichloroethene and then to cis-1,2-dichloroethane. The next step in the degradation sequence is vinyl chloride which has a MCL of 2 µg/L. In conclusion, a DNAPL plume associated with the 300 APT has contaminated groundwater beneath the 300 Area for over 20 years. The concentrations within, and the extent of this contaminant plume are unknown. The present major contaminant is cis-1,2-dichloroethene which is present in well 399-1-16B at concentrations well above the MCL. The next step in the degradation process is vinyl chloride, which is much more toxic than cis-1,2-dichloroethene. A characterization effort to determine the magnitude and extent of the plume is needed to allow for estimation of present and future impacts to the Columbia River. The persistence of chlorinated hydrocarbon contamination in well 399-1-16B indicates the presence of a DNAPL plume near the bottom of the aquifer in the vicinity of the 300 APT. Conditions in the lower portion of the aquifer are highly reducing (Lindberg and Chou 1995) and groundwater flow rates near the bottom of the aquifer are probably relatively slow. In addition, the sequence of occurrence of chlorinated hydrocarbons in well 399-1-16B (trichloroethene, dichloroethene) is the expected degradation order for tetrachloroethene under reducing conditions	Ecology disagrees with writing a permit condition which precludes the use of any remedy. The prudent approach is to evaluate all remedial alternatives and select the best one(s). A final ROD for remediation of soil and groundwater in the 300 Area was issued in November 2013. Ecology is evaluating the ROD approach and determining if it meets RCRA standards. If it does meet RCRA standards, Ecology will most likely adopt the CERCLA remedy for 300 Area soil and groundwater rather than to duplicate effort. The revised fact sheet for revision 9A now addresses the groundwater contamination, contaminants of concern, and the basis for permit conditions requiring the Permittees to comply with the requirements of Addendum D, "Groundwater Monitoring Plan," for the 300 APT.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Part VI states: "The corrective action for groundwater contaminants are addressed under the Interim Record of Decision (ROD) for the 300-FF-1 and 300-FF-Operable Unit (July, 7, 1996) until the final ROD is completed." As monitored natural attenuation was the selected IROD remedy for uranium and the last two CERCLA 5-year ROD reviews have concluded the remedy is non-protective, the deferral of corrective action to the IROD is inappropriate. Also, as Ecology is not authorized for CERCLA, for enforceability this seems inappropriate. In addition, because Ecology accepted USDOE's permit application as "complete", Ecology should be able to specify groundwater corrective action requirements in the RCRA permit. Part VI conditions should clearly specify groundwater corrective action requirements that satisfy WAC 173-303-645(11).	The files for the 300 APT Post-Closure Unit Group have been updated to reflect the agreements made in the 300 Area ROD/ROD Amendment (2013) and no longer reference the Interim Record of Decision (1996). Groundwater monitoring will achieve the corrective action requirements of WAC 173-303-645(11) at the 300 APT by implementing the requirements in Addendum D, "Groundwater Monitoring Plan." No additional changes have been made as a result of this comment.
Alisa Huckaby	300A	The fact sheet states: "The Permittees were already remediating the groundwater in the area as part of remedial actions for the 300-FF-5 operable unit." Actually, the chlorinated hydrocarbon groundwater contamination is not being (and has never been) remediated. The fact sheet should be corrected.	The fact sheet states that the remedy selected for groundwater in the 300 Area was monitored natural attenuation (MNA) combined with institutional controls (ICs). MNA combined with ICs was the selected remedy for all contaminants in 300 Area groundwater, not just for uranium. Although uranium was and is a primary constituent of concern in 300 Area groundwater, the extent of organic contamination (primarily dichoroethene (DCE), trichloroethene (TCE), tetrachloroethene, and vinyl chloride (VC)) in the 300 Area has been studied extensively and is continuing to be characterized. TCE and DCE are present in small regions of 300 Area groundwater. VC has been specifically looked for but it has not been found. The data to date has indicated that TCE appears to be degrading to DCE which is degrading to carbon dioxide. Decades of data are available that show the TCE degrading from high levels to near drinking water standards today. DCE levels are staying about the same as it is being created as a degradation product of TCE but it is also decreasing as a result of degrading to CO2. TCE can degrade to VC, however, based on the analytical data, this does not appear to be happening. Nature is doing exactly what we would want it to do in the 300 Area with regards to the VOCs so we see no reason to intervene in the process and therefore are focusing on the remediation of uranium and not the VOCs.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	The fact sheet states: “The Permittees are continuing to characterize the extent of the organic contamination in groundwater.” Actually, the permittees are not continuing to characterize the extent of the organic contamination in groundwater. The fact sheet should be corrected.	Although uranium was and is a primary constituent of concern in 300 Area groundwater, the extent of organic contamination (primarily dichoroethene (DCE), trichloroethene (TCE), tetrachloroethene, and vinyl chloride (VC)) in the 300 Area has been studied extensively and is continuing to be characterized. Thus, this is a true statement and does not need to be corrected.
Alisa Huckaby	300A	The fact sheet states: “Ecology is basing post-closure requirements for the 300 APT on the standing commitment to implement corrective action for groundwater.” The fact sheet should contain references of the documented “standing commitment to implement corrective action for groundwater” in relation to the chlorinated hydrocarbons. This commenter does not believe such a commitment exists. If such a commitment exists, the fact sheet should reference the documented commitment. Otherwise, the fact sheet should be revised to clearly indicate there is no commitment to implement corrective action for groundwater contaminated with chlorinated hydrocarbons from the 300 APT. Also, the fact sheet should acknowledge uranium contamination and assert RCRA corrective action authority to remediate uranium vadose zone and groundwater contamination.	EPA has recently completed a thorough CERCLA process for the remediation of groundwater and soils in the 300 Area. The result of this process was a final ROD issued in November 2013 obligating the Department of Energy to the final remedies. As part of this process the need for additional soil and groundwater characterization data was evaluated and additional data was and will be collected, as needed. The process thoroughly evaluated the data and determine the best approach for remediation of 300 Area soil and groundwater. Under the permit, and as a cooperating agency with EPA, Ecology had the opportunity to review and comment on the CERCLA process and played a role in the final development of the ROD. Ecology does not see any benefit to duplicating remedial efforts or paperwork and therefore, plans to adopt the final ROD for remediation of the 300 Area. The remediation of groundwater does not have to mean an active remediation. Allowing the chlorinated hydrocarbons to naturally degrade is a corrective action, and in this case it appears to be the one that makes the most sense in terms of protection of human health and the environment and a cost effective approach. The fact sheet has been updated to incorporate the plan to adopt the existing CERCLA remedial process to satisfy the RCRA requirements for remediation of soil and groundwater in the 300 Area.
Alisa Huckaby	300A	The fact sheet states: “This is consistent with state regulations that allow corrective action requirements to be replaced in an enforceable document [WAC 173-304-645(1)(e)].” The correct regulatory citation is: WAC 173-303-645(1)(e).	The regulatory citations in the fact sheet has been corrected to be consistent with revisions of the Dangerous Waste Regulations, Chapter 173-303 WAC.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	The fact sheet states: "The corrective action requirements of RCRA will be met when Ecology accepts the final CERCLA remedy for the 300-FF-5 operable unit impacted by the 300 APT." Because corrective action requirements do not exist for the 300 APT, they have not been placed in an enforceable document as required by WAC 173-303-645(1)(e). Therefore, it is not known if the CERCLA remedy will protect human health and the environment. Clearly, this is an inappropriate application of WAC 173-303-645(1)(e). Although Condition VI.1.C.2 is written correctly to say the permittees may propose the use of alternative requirements for groundwater monitoring, the fact sheet neither accurately reflects the permit condition nor correctly follows WAC.	EPA has conducted a thorough CERCLA process for the remediation of groundwater and soils in the 300 Area. The result of this process was a final ROD issued in November 2013 obligating the Department of Energy to the final remedies. The purpose of the CERCLA process was to conduct a thorough investigation, study the data, and propose a remedy which is protective of human health and the environment. Therefore, we disagree with the statement that "it is not known if the CERCLA remedy will protect human health and the environment." Ecology has every confidence in EPA and is certain that they will arrive at a protective solution. Ecology did review and comment on the EPA process, and therefore, is essentially assured that we are in agreement with the remedy. Ecology believes that it is the best use of EPA's, Ecology's, and DOE's resources and public funds to follow one process rather than to duplicate efforts. The CERCLA process can and should accomplish the same objectives as the RCRA process, therefore, the prudent approach is to defer to the process which was recently completed and work closely with the EPA to be certain that it is implemented correctly and effectively.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	The fact sheet states: "Ecology revisited the need for changing the permit to reflect corrective action. Instead, Ecology accepted the remediation of groundwater under a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD)." The fact sheet appears to be saying that Ecology has accepted the remediation being conducted under the CERCLA interim ROD. Monitored natural attenuation (MNA) for uranium groundwater remediation has been determined to not be protective (see past CERCLA 5-year ROD reviews). Similarly, the chlorinated hydrocarbon plumes are not attenuating. Therefore, the CERCLA final ROD will select another remedy for uranium and the remedy for the chlorinated hydrocarbons is unknown at this time. It is inappropriate for Ecology to accept the remediation of groundwater under a CERCLA interim ROD when the CERCLA 5 year reviews have concluded the remedy is not protective. Furthermore, it is inappropriate for Ecology to accept the MNA remediation of groundwater for the chlorinated hydrocarbons when the chlorinated hydrocarbon groundwater contamination does not meet EPA guidance on selecting MNA as a remedy. The fact sheet should be re-written.	EPA recently conducted a thorough CERCLA process for the remediation of groundwater and soils in the 300 Area. This process was conducted as a follow on to the previous CERCLA process because the remedy implemented from the previous CERCLA process was not effective in remediating the uranium plume in the 300 Area groundwater (as pointed out in the CERCLA 5 year reviews). The recent process took a new look at the remediation of uranium in the 300 Area groundwater and recommended a new approach to remediation (other than NMA) in a final ROD issued in November 2013. The final ROD obligates the Department of Energy to the final remedy. Thus, we have moved beyond NMA. With regard to the organic hydrocarbons in the 300 Area groundwater, the data show that VOCs in groundwater in the 300 Area are attenuating and continue to do so. The prudent approach is to allow this natural process to continue as it allows for better uses of limited funds and allows us to focus on the many higher priority concerns and environmental issues at Hanford.
Alisa Huckaby	300A	The fact sheet states: "The Permittees were already remediating the groundwater in the area as part of remedial actions for the 300-FF-5 operable unit." Actually, the remediation (MNA) for uranium contaminated groundwater has been determined to be non-protective. Neither the uranium contaminated groundwater nor the chlorinated hydrocarbon contaminated groundwater are attenuating. The fact sheet should be written to accurately describe the IROD as well as the conclusions reached for the last two CERCLA 5-year ROD reviews.	The most recent CERCLA 5-year review has concluded that NMA is not working for uranium remediation but this is not the case for remediation of chlorinated hydrocarbons. The CERCLA 5-year review has noted that while chlorinated hydrocarbons are present in groundwater, there is very little evidence that they are emanating from the 300 Area at levels of concern. The more recent monitoring data for chlorinated hydrocarbons in the 300 Area indicate that concentrations are decreasing and thus, NMA is working. The reviews further conclude that even if VOCs get to the river via groundwater, the exposure risk period in the river is very short, and the concentrations are likely to be very low because of volatilization and dilution. The RI/FS did a thorough evaluation of 300 Area groundwater, to include evaluating the data for chlorinated hydrocarbons as well as uranium, and recommended a remediation strategy based on its finding. The prudent approach is to continue to follow this CERCLA process which will focus our efforts and limited funds on real risks.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Fact Sheet: It is this commenter's understanding that Ecology had extensive review comments associated with the draft 300 Area Proposed Plan and Feasibility Study. It is requested that the fact sheet acknowledge this and provide a summarization of Ecology's concerns particularly related to groundwater remediation of uranium and chlorinated hydrocarbons and constituent of potential concern selection.	In short, Ecology's comments expressed concern over NMA not being an effective remedy for uranium in groundwater, they expressed concern that chlorinated hydrocarbons (VOCs) in groundwater are not being addressed and that NMA is not an effective remedy for VOCs, and that the RCRA permit needs to include corrective actions to address the remediation of groundwater and soils in the 300 Area because the CERCLA process is not adequate. As stated in the response to previous comments, the issues with NMA not being an effective remediation for uranium and VOCs in the 300 Area groundwater has been and is being addressed by the CERCLA process, and there is every reason to believe that this CERCLA process will adequately address the soil and groundwater remediation issues in the 300 Area. Again, when there are much more pressing environmental issues to address at Hanford and limited resources, it doesn't make sense to duplicate efforts with both a RCRA and CERCLA process.
Alisa Huckaby	300A	General Comment: It is apparent that the draft 300 APT permit conditions were not peer reviewed by knowledgeable Ecology staff prior to being released for public review and comment. As such, due to the numerous deficiencies and general unenforceability of the permit, Ecology (at taxpayer's expense) will spend significant time and resources to respond to the numerous comments and to revise the flawed conditions and addendums. Ecology should revise its process for drafting RCRA permits to require specialists to provide input so that Ecology products are improved.	We agree that the Hanford Site-wide Permit should be an equivalent, consistent, compliant and implementable. Since the 2012 Hanford Site-wide Permit, Rev. 9 renewal, Ecology developed a robust project management plan to address the revisions that needed to be made on the draft renewal. Staff at the Nuclear Waste Program developed guidance documents for each portion of the permit using dangerous waste regulations and 95-402, Dangerous Waste Permit Application Guidance, as well as additional guidance documents, as appropriate. Each unit group in the Hanford Site-wide Permit and each addenda within the unit group was reviewed against the suite of guidance documents. Ecology and the Permittees held workshops to address the deficiencies and changes that needed to be made within the permit. Permit Conditions were identified and updated for each unit group. Standard conditions and attachments were also updated with guidance from EPA. Issues were elevated through a specific decision-making process to ensure they were resolved or a decision was made. For more information on the project management plan and process that Ecology followed to create the revised renewal, please review the Hanford Site-wide Permit, Rev. 9A Fact Sheet.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.C: The requirements of -645 should be specified in this permit. WAC 173-303-645 clearly identifies what the department will specify in the facility permit. Condition VI.1.C does not specify the following: dangerous constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), or compliance period (-645(7)). It should be noted that once the RCRA permit is issued, the permittees may use the permit as a "shield" against WAC requirements. Therefore, it is all the more important that the permit specify standards and requirements that are being imposed. Otherwise, the permit is unenforceable. As written, Condition VI.1.C in no way, shape, or form, ensures groundwater protection standards will be satisfied.	The release from regulated units requirements of WAC 173-303-645 will be satisfied by the CERCLA process recently completed by EPA for the 300 Area soil and groundwater and will be enforceable by the CECLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. In addition, the Rev. 9 permit which Ecology is currently working on is being written such that the conditions and requirements of the permit are enforceable. Thus, the standards and requirements that you are concerned about will be more enforceable under the new permit. The revised Groundwater Monitoring Plan for the 300 APT referenced in condition VI.1.C.1 contains the required specifics identified in your comment.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.C.2.3: Per WAC 173-303-645(4), dangerous constituents should be listed. Condition VI.1.C.2.3 only lists 3 chlorinated hydrocarbons. The Part A permit identifies D007 (chromium); therefore, chromium should be identified as a dangerous constituent for which monitoring is required. In addition, the Part A permit identifies WT02. The permit should identify which constituents are associated with the WT02 waste code. Similarly, the Part A permit identifies F001, F002, F003, and F005. The permit should identify which constituents are associated with the respective waste codes. Similarly, the Part a permit identifies D002. Even though the groundwater is likely not corrosive, the permit should identify which waste constituents associated with the corrosive waste stream(s) that were disposed at the 300 APT. Those D002-related waste constituents should be identified as dangerous constituents for which monitoring is required. Table 2-1 of the groundwater monitoring plan provides an estimate of chemicals discharged to the 300 APT. Each waste stream constituent listed on Table 2-1 should be considered for regular monitoring. Furthermore, the groundwater monitoring plan identifies more than the 3 chlorinated hydrocarbons. The groundwater monitoring plan identifies uranium as a waste constituent that will be monitored and the permit should also. Again, to satisfy groundwater protection standards of WAC 173-303-645, waste constituents and their concentrations should be specified by this permit.	The release from regulated units requirements of WAC 173-303-645 will be satisfied by the CERCLA process completed by EPA for the 300 Area soil and groundwater and is enforceable by the CECLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. In addition, the Rev. 9 permit which Ecology is currently working on is being written such that the conditions and requirements of the permit are enforceable. Thus, the standards and requirements that you are concerned about will be more enforceable under the new permit.
Alisa Huckaby	300A	New Condition: WAC 173-303-645(10)(g) requires an annual determination of whether additional dangerous waste constituents are present in the groundwater. Due to the information provided in Table 2-1, a new condition should be included which addresses the possibility that dangerous waste constituents (other than what is routinely monitored) may be occurring in the groundwater. Note: WAC 173-303-645(10)(g) requirements may be imposed via WAC 173-303-645(11)(d) [which requires a groundwater monitoring program to demonstrate the effectiveness of the corrective action program and may be based on the requirements for a compliance monitoring program under -645(10).	The release from regulated units requirements of WAC 173-303-645 will be satisfied by the CERCLA process completed by EPA for the 300 Area soil and groundwater and will be enforceable by the CERCLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. In addition, the Rev. 9 permit is being written such that the conditions and requirements of the permit are enforceable. Thus, the standards and requirements that you are concerned about will be more enforceable under the new permit.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.C.1: The condition states: “Groundwater monitoring at the 300 Area Process Trenches will follow the ‘Groundwater Monitoring Plan for the 300 Area Process Trenches’ (WHC-SD-EN-AP-185) (incorporated by reference) to meet the WAC 173-303-645(11)(g) requirements.” Actually, as indicated above, groundwater corrective action for the chlorinated hydrocarbons is not occurring. The referenced monitoring plan merely provides for groundwater monitoring. Such groundwater monitoring is neither RCRA groundwater corrective action nor satisfies the RCRA groundwater corrective action requirements of WAC 173-303-645(11). Therefore, the correct RCRA groundwater monitoring program that the permit should specify is compliance monitoring (WAC 173-303-645(10)).	The groundwater monitoring and the groundwater corrective action monitoring requirements of WAC 173-303-645 will be satisfied by the CERCLA process completed by EPA for the 300 Area soil and groundwater and will be enforceable by the CERCLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements.
Alisa Huckaby	300A	Condition VI.1.C.2: The condition requires submittal of an updated groundwater monitoring plan 180 days after issuance of the final ROD for the “300-FF-1 and 300-FF-5 Operable Unit”. Actually, because uranium contamination is emanating from 300-FF-1 OU units and the 300-FF-1 OU has a final ROD, a decision to issue a final ROD for the 300 Area has been made. The permit should list the correct title of the ROD or the correct OUs that will be in the final ROD (i.e., 300-FF-1, 300-FF-2, and 300-FF-5).	A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) has been completed for evaluation and proposed remedy for groundwater in the 300 Area. This CERCLA process is being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.C.2: The condition requires submittal of an updated groundwater monitoring plan 180 days after issuance of the final ROD for the "300-FF-1 and 300-FF-5 Operable Unit". Per WAC 173-303-645, the permit should specify dangerous groundwater protection standards including: constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), compliance period (-645(7)), compliance monitoring requirements (-645(10)), etc. Based on what is specified in the permit, the permittee should submit an updated groundwater monitoring plan after the permit becomes effective. As written, the permit condition appears to be relying on the CERCLA process to identify RCRA standards and requirements. As Ecology is not authorized for CERCLA, this seems inappropriate. In addition, because Ecology accepted USDOE's permit application as "complete", Ecology should be able to specify groundwater requirements that will be required in an updated groundwater monitoring plan.	The release from regulated units requirements of WAC 173-303-645 will be satisfied by the CERCLA process recently completed by EPA for the 300 Area soil and groundwater and will be enforceable by the CECLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements.
Alisa Huckaby	300A	Condition VI.1.C.2: The condition states: "Ecology may determine that the completion of closure of the 300 Area Process Trenches Unit can be performed as an element of the CERCLA Remedial Action for the 300-FF-1 and 300-FF-5 Operable Unit as documented in the final CERCLA Record of Decision for that Operable Unit." As Ecology has accepted USDOE's closure certification and has placed the 300 APT in Part VI (post-closure) portion of the permit, the statement makes no sense. If Ecology has made a mistake in accepting the closure certification without requiring USDOE to satisfy closure performance standards of WAC 173-303-610, the Fact Sheet should acknowledge this mistake and the omnibus authority of WAC 173-303-815 or some such RCRA authority should be used to require additional action (i.e., remediation).	Ecology disagrees. Ecology believes that it make very good sense to use the CERCLA process (RI/FS, Proposed Plan, and ROD) for satisfying the requirements of the RCRA permit rather than duplicate efforts and waste time and money. The CERCLA process, which was conducted in 2012 and 2013, was a very thorough and comprehensive process that evaluated groundwater and soil conditions and contaminant concentrations in the 300 Area and proposed a final remedy in the final ROD for 300-FF-2 and 300-FF-5, and ROD Amendment for 300-FF-1 that was issued in November 2013. The ROD process is being implemented at this time. Ecology will adopt the CERCLA process to satisfy RCRA requirements, however, Ecology will work with EPA, DOE, and their contractors to be sure that the remedy is achieving the desired results and if we are not satisfied, we will take the necessary regulatory actions.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Conditions VI.1.C.2.1 through VI.1.C.2.4: The permit conditions are clearly describing groundwater monitoring and not RCRA groundwater corrective action. Similarly, Addendum D only describes groundwater monitoring. Therefore, the permit seems to be attempting to describe a compliance monitoring program (see WAC 173-303-645(10)). As such, additional permit conditions should be added which specify how the requirements of WAC 173-303-645(11)(d) will be met via WAC 173-303-645(10). For example, the permit should clearly specify how the groundwater monitoring data will be evaluated after monitoring is conducted to demonstrate the effectiveness of the corrective action program (i.e., WAC 173-303-645(10)(c), -(d), and -(f) to satisfy WAC 173-303-645(11)(d)).	The WAC 173-303 requirements for groundwater monitoring and for how groundwater monitoring data will be evaluated will be satisfied by the CERCLA process recently completed and being implemented by EPA for the 300 Area soil and groundwater. This work will be enforceable by the CECLA final ROD which was issued in November 2013. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action.
Alisa Huckaby	300A	Conditions VI.1.C.2.1 through VI.1.C.2.4: 300 APT groundwater monitoring wells indicate chlorinated hydrocarbon concentrations exceed MCLs and groundwater concentrations of those chlorinated hydrocarbons are not decreasing. The permit has identified that the groundwater is being monitored in a RCRA corrective action program (WAC 173-303-645(11)). Therefore, Ecology should identify how groundwater is being remediated (e.g., monitored natural attenuation, pump-and-treat, etc.). As stated previously, the permit should specify how the groundwater monitoring data will be evaluated after monitoring is conducted to demonstrate the effectiveness of the corrective action program (i.e., WAC 173-303-645(10)(c), -(d), and -(f) to satisfy WAC 173-303-645(11)(d)).	A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) has been completed for evaluation and proposed remedy for groundwater in the 300 Area. This CERCLA process is being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.C.3: To satisfy WAC 173-303-645(11)(d), the condition should be re-written to specify how the groundwater monitoring data will be evaluated after monitoring is conducted to demonstrate the effectiveness of the corrective action program. To further explain, the condition should be re-written to require reporting when permit-specified concentration limits are exceeded (i.e. WAC 173-303-645(10)(h), -(i), and –(j)).	A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) has been completed for evaluation and proposed remedy for soil and groundwater in the 300 Area. This CERCLA process is being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action. Under this CERCLA action it will be specified how the monitoring data will be evaluated, the effectiveness of the remedy will be fully evaluated, and the results will be reported such that it will be clear when concentration limits are exceeded. These data are always available to the public and any interested parties for the Hanford Site project.
Alisa Huckaby	300A	Additional Conditions: Additional permit conditions are needed to specify the technical, regulatory, and administrative process by which RCRA groundwater corrective action program requirements of WAC 173-303-645(11) will be satisfied in the future. WAC 173-303-645(11)(c) requires the owner or operator to “begin corrective action within a reasonable time period after the ground water protection standard is exceeded”. As previously indicated, a DNAPL plume associated with the 300 APT has contaminated groundwater beneath the 300 Area for over 20 years. Twenty years does not constitute “within a reasonable time period”. Also as previously indicated, the concentrations within, and the extent of this contaminant plume are unknown. Clearly, monitoring alone will not achieve RCRA groundwater corrective action. As RCRA compliance monitoring is administratively intended to be an interim program between detection and corrective action programs, Ecology should either re-write the permit to specify corrective actions or include permit conditions which establish the process by which the permit will be modified in the future to require the permittee to satisfy RCRA corrective action requirements of WAC 173-303-645(11).	DOE and their contractors have looked extensively for DNAPL in the 300 Area and have not found it. This does not mean that it doesn't exist as DNAPL is very difficult to find, but all indications are that if it is present, it is very small as indicated by the significant drop in TCE concentrations from very high to pretty low at this time. As you have stated, the previous remedy for groundwater, primarily monitored natural attenuation, was not completely successful. It worked very well for VOCs as the concentrations have dropped dramatically, but it was not successful for uranium. As a result, a thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) was completed for evaluation and a remedy for groundwater was proposed in the 300 Area. This CERCLA process/remedy is currently being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Condition VI.1.B.1: The permit identifies “corrective action requirements” and requires an “updated post-closure plan”. Although not clear, the permit condition appears to be addressing contaminated vadose zone. If Ecology has made a mistake in accepting the closure certification without requiring USDOE to satisfy closure performance standards of WAC 173-303-610, the Fact Sheet should acknowledge this mistake and the omnibus authority of WAC 173-303-815 or some such RCRA authority should be used to require additional action (i.e., remediation).	The 300 APT was remediated at the time of closure and the only remaining contamination is in the groundwater. A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) was completed for evaluation of groundwater conditions in the 300 Area and a remedy for groundwater was proposed for 300 Area groundwater and soils. This CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA post-closure requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action.
Alisa Huckaby	300A	Condition VI.1.D.1: The condition does not specify a standard and is therefore, unenforceable. Include post-closure requirements specified by WAC 173-303-610(7), (8), (9), and (10).	Permit Condition VI.1.D.1 has been revised to read "The Permittees will comply with post closure requirements in Addendum K, "Post Closure Plan"
Alisa Huckaby	300A	Addendum K: The post-closure plan should be revised to include post-closure requirements specified by WAC 173-303-610(7), (8), (9), and (10).	Addendum K, "Post-Closure Plan," has been revised through collaborative workshops with the Permittees. This revised addendum meets the relevant requirements described in WAC 173-303-610.
Alisa Huckaby	300A	Addendum K: Section K.2.2 should be revised to include well maintenance and repair requirements of WAC 173-160.	Addendum K, "Post-Closure Plan," has been revised through collaborative workshops with the Permittees. This revised addendum includes Section K.3.2 which addresses Well Inspection and Maintenance. Permit Attachment 8 provides additional information on inspection requirements for groundwater monitoring wells.
Alisa Huckaby	300A	Addendum K: Section K.1.2, K.2, K.2.1, and/or K.2.2. should be revised to require all well inspection, maintenance, and repair information to be entered into the Hanford Well Information System (HWIS) database.	Addendum K, "Post-Closure Plan," has been revised through collaborative workshops with the Permittees. This revised addendum includes Section K.3.2 which addresses Well Inspection and Maintenance. Permit Attachment 8 provides additional information on inspection requirements for groundwater monitoring wells.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Addendum D: The groundwater monitoring plan is out of date. A recent CERCLA RI/FS investigation has yielded new information that should be added to the groundwater monitoring plan.	A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. This CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action. Therefore, there is no need to update the groundwater monitoring plan as this work has been done by the CERCLA process which is currently being implemented.
Alisa Huckaby	300A	Addendum D: An anomalous elevated uranium result in groundwater from 399-2-27A collected in June, 2011 was reported by WA Dept. of Health. The anomalous result 2,200 pCi/L is two orders of magnitude above typical activities which are around 60 pCi/L. Although USDOE is still looking into the anomalous result, the current thinking is that the uranium was remobilized by water used for dust suppression during cleanup of the 618-7 burial ground. The groundwater monitoring plan should include a provision that groundwater monitoring will occur if water is applied to the 300 APT (i.e., firefighting, dust suppression, etc.).	The agencies have been very aware of the potential for driving contaminants deeper and mobilizing contamination as a result of dust suppression watering, therefore, DOE and the contractors have been very careful not to "over-water" during dust suppression. Whenever anomalies occur, it is common practice to evaluate the date and take the necessary steps to try to better understand the cause of the issue. This is already occurring and will continue to occur as required by the ROD for 300-FF-2 and 300-FF-5, and the ROD Amendment for 300-FF-1. Ecology does not see the need to duplicate these efforts but does reserve the right to require more action if we are not satisfied with the process.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Addendum D: The 2010 groundwater annual report identifies groundwater sample collection can affect contaminant concentration by the following: “As suggested by the rapid changes in groundwater concentrations that may be the result of changes in water table elevation and river stage, it is apparent that the timing of groundwater sample collection plays a significant role in determining the uranium concentration for the sample. Thus, concentration patterns shown in groundwater plume maps contain bias in regard to representing aquifer conditions. Bias is also introduced by the different construction features of the various monitoring wells and aquifer tubes that make up the groundwater monitoring network. This bias was evident in recent monitoring results at the polyphosphate treatability test site, which is located at the southern end of the former 300 Area Process Trenches. Significantly higher concentrations of uranium were measured in samples from wells with 0.6 meter screens located in the uppermost portion of the aquifer than in samples from wells with typical 5 meter screens (‘River-Induced Flow Dynamics in Long- Screen Wells and Impact on Aqueous Samples’ [Vermeul et al., 2010]). An understanding of bias in monitoring data is important when (1) describing uncertainties associated with the conceptual site model, and (2) establishing criteria for remedial action performance evaluation and subsequent compliance monitoring.” The groundwater monitoring plan in Addendum D should be updated to: describe and acknowledge the above findings and conclusions.	This is a good observation. As you stated, these findings and conclusions were identified in the 2010 annual report which was prepared by DOE and their contractors. Because they prepared the report, they are aware of these findings and took them into account when conducting the through CERCLA RI/FS, Proposed Plan, and ROD process that was completed for evaluation of 300 Area groundwater and soils. The final remedy for groundwater and soils as contained in the final ROD for 300-FF-2 and 300-FF-5, and ROD Amendment for 300-FF-1 (November 2013) probably takes this information into consideration. The ROD process is being implemented at this time. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Ecology will adopt the CERCLA process to satisfy RCRA requirements, however, Ecology will work with EPA, DOE, and their contractors to be sure that these ideas are incorporated into the studies.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Addendum D: Because post-closure groundwater monitoring should be performed for several decades, it is important that measurements of groundwater contaminant concentrations be accurate. Therefore, considering the findings previously described, new compliance monitoring groundwater wells should be constructed with shorter screens (i.e., less than 15 foot screens). Post-closure groundwater monitoring should begin anew. In other words, background concentrations of naturally occurring constituents should be re-established.	DOE and their contractors are aware of the need for accurate background concentrations and, therefore, took this into account when conducting the thorough CERCLA RI/FS, Proposed Plan, and ROD process that was completed for evaluation of 300 Area groundwater and soils. The final remedy for groundwater and soils as contained in the final ROD for 300-FF-2 and 300-FF-5, and ROD Amendment for 300-FF-1 (November 2013) took this into consideration. The ROD process is being implemented at this time. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Ecology will adopt the CERCLA process to satisfy RCRA requirements, however, Ecology will work with EPA, DOE, and their contractors to be sure that the background concentration data is accurate and if we are not satisfied, will take the necessary regulatory actions.
Alisa Huckaby	300A	Addendum D: Because post-closure groundwater monitoring should be performed for several decades, it is important that measurements of groundwater contaminant concentrations be accurate. Therefore, considering the findings previously described, the timing of groundwater sample collection should be specified in the groundwater monitoring plan to achieve collection of a sample that will likely yield the highest contaminant concentrations based on river stage.	DOE and their contractors are aware of the need for accurate background concentrations and the timing of collection of groundwater samples with river stage, therefore, they took this into account when conducting the thorough CERCLA RI/FS, Proposed Plan, and ROD process that was completed for evaluation of 300 Area groundwater and soils. The final remedy for groundwater and soils as contained in the final ROD for 300-FF-2 and 300-FF-5, and ROD Amendment for 300-FF-1 (November 2013) took this into consideration. The ROD process is being implemented at this time. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Ecology will adopt the CERCLA process to satisfy RCRA requirements, however, Ecology will work with EPA, DOE, and their contractors to be sure that the background concentration data is accurate and if we are not satisfied, will take the necessary regulatory actions.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	300A	Addendum D: The groundwater monitoring plan should be updated to include vadose zone information obtained from borehole 399-1-56 and groundwater information obtained from well 399-1-56. In addition, because aroclor-1260 was detected in borehole samples, aroclor-1260 should be added to the list of groundwater monitoring constituents. Similarly, any other waste constituent detected in borehole samples from 399-1-56 not already included in groundwater monitoring, should also be added. Note: a cursory review of groundwater data indicates that vanadium, barium, chloride, and nitrite concentrations were above Hanford Site groundwater background concentrations (DOE/RL-96-61).	A thorough evaluation of groundwater conditions and contaminant concentrations was conducted in 2012 and 2013 as part of the CERCLA RI/FS, Proposed Plan, and ROD process that was completed for evaluation of 300 Area groundwater and soils. The final remedy for groundwater and soils as contained in the final ROD for 300-FF-2 and 300-FF-5, and ROD Amendment for 300-FF-1 (November 2013) takes all this information into consideration when coming up with a final remedy. The ROD process is being implemented at this time. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Ecology will adopt the CERCLA process to satisfy RCRA requirements, however, Ecology will work with EPA, DOE, and their contractors to be sure that the proper constituents are being monitored for and if we are not satisfied, we will take the necessary regulatory actions.
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “The 183-H Solar Evaporation Basins (183-H) were four concrete basins used for waste treatment and disposal…..They were later used for storage and disposal of chemical wastes.” These statements do not agree with the Part A permit which indicates the basins were used for the storage and treatment of mixed waste. The fact sheet’s statements should be corrected.	The four concrete basins were used for the storage and treatment of chemical wastes by means of evaporation, not for disposal. The fact sheet has been corrected with this clarification.
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “Since contamination remained in the soil, a liner was placed over the contaminated soil, and the unit was filled with clean soil.” It is this commenter’s understanding that no liner was placed over the contaminated soil. The fact sheet should be corrected.	Ecology is basing post-closure permit requirements for the 183-H on: the standing commitment to corrective action for groundwater, the final remedy decision for 100-H Area, and unit-specific satisfaction of Resource Conservation and Recovery Act (RCRA) groundwater protection standards.
Alisa Huckaby	183-H	Part A permit: The description under “Nature of Business” states: “The 183-H Solar Evaporation Basins were used for the storage and treatment of mixed waste generated in the N Reactor fuels fabrication facilities.” The fact sheet indicates the waste managed in the 183-H came from the 300 Area Fuel Fabrication Facility. The Part A should be corrected.	The four basins received both routine and non-routine wastes. The routine wastes included spent acid etch solutions generated during the nuclear reactor fuel fabrication process at the N Reactor Fuel Fabrication Facilities, which was located in the Hanford 300 Area.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “This is consistent with regulations that allow information gathered for corrective actions to be developed under another authority [WAC 173-304-64620(4)].” The fact sheet appears to be discussing RCRA closure and groundwater corrective action that would occur under WAC 173-303-610 and -645(11) respectively. If so, the correct regulation to cite is WAC 173-303-645(1)(e). The fact sheet should be corrected.	Ecology does not agree with the requested change. DOE may submit a request for alternative requirements under WAC 173-303-610(1)(e).
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “Ecology and the USDOE are developing data quality objectives for a Remedial Investigation/Feasibility Study (RI/FS) at the 100-D and 100-H Areas. The RI/FS will support a final remedy decision. Ecology has identified data quality objectives for the 183-H solar evaporation basins.” The fact sheet should describe the development of data quality objectives in past tense as they were developed in DOE/RL-2008-46, ADD5.	DOE/RL-2008-46, ADD5 refers to the 100 Area Remedial Investigation for the 100-NR-1 and 100-NR-2 Operable Units. The fact sheet has been updated to reflect actions and decisions that affect 183-H.
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “In accordance with WAC 173-303-64620(4), Ecology will allow USDOE to use information that is adequate to support selection of a cleanup action consistent with WAC 173-340-360, but was developed under the federally overseen CERCLA cleanup.” The fact sheet should be describing how RCRA groundwater corrective action requirements of WAC 173-303-645(11) will be satisfied. However, it appears to be describing how RCRA corrective action satisfying MTCA cleanup requirements will be satisfied. The fact sheet should only describe RCRA post-closure and groundwater requirements. Again, the correct regulation to cite is WAC 173-303-645(1)(e). The fact sheet should be corrected.	Ecology does not agree with the requested change. DOE may submit a request for alternative requirements under WAC 173-303-610(1)(e).
Alisa Huckaby	183-H	Fact Sheet: The fact sheet states: “Therefore, Ecology is basing post-closure permit requirements for the 183-H on: the standing commitment to corrective action for groundwater…” For clarification, it is requested the Ecology include a reference for USDOE’s documented “standing commitment to corrective action for groundwater”.	The fact sheet has been updated to show reference actions under previous interim ROD and current remediation actions under the final ROD issued on 7/30/2018.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	183-H	General Comment: It is this commenter's concern that the draft 183-H permit conditions were not peer reviewed by the appropriate Ecology staff prior to being released for public review and comment. As such, due to the numerous deficiencies and general unenforceability of the permit, Ecology (at taxpayer's expense) will spend significant time and resources to respond to the numerous comments and to revise the erroneous fact sheet and flawed conditions and addendums. Ecology should revise its process for drafting RCRA permits to allow specialists to provide input and positively affect such Ecology products.	Ecology's internal process for Revision 9 of the Hanford Facility Dangerous Waste Permit does involve the review of permit conditions by numerous Ecology staff and US EPA Region 10 representing expertise in a wide range of appropriate fields.
Alisa Huckaby	183-H	Conditions, Unit Description: The unit description states: "The 183-H Solar Evaporation Basins were four concrete basins used for waste treatment and disposal from 1973 to 1985." These statements do not agree with the Part A permit which indicates the basins were used for the storage and treatment of mixed waste. The permit's unit description should be corrected.	Ecology agrees that the 183-SEB four concrete basins were not used for disposal. The permit conditions has been corrected to remove "disposal" from the historic use of the 183-H SEB's. Corrected description now reflects "...waste treatment and storage from 1973 to 1985."
Alisa Huckaby	183-H	Conditions, Unit Description: The unit description states: "Postclosure groundwater monitoring is being conducted as a part of the interim action for the 100-HR-3 Groundwater Operable Unit." Postclosure groundwater monitoring should be conducted to satisfy RCRA groundwater protection standards of WAC 173-303-645. The unit description should be re-written to correctly describe the groundwater monitoring that is being performed.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	183-H	Addendum D, Section D.1.1.1: The only dangerous constituents identified are hexavalent chromium and nitrate. Addendum D should be re-written to identify all waste constituents that were managed at the 183-H that could negatively impact groundwater quality. For example, the following waste codes were applied to solids, grit, crystal, and/or liquid from the 183-H Solar Evaporation Basins: U123, P120, P030, P029, P106, P098, and D001. Dangerous waste constituents associated with the waste codes should be identified as dangerous constituents in Section D.1.1.1 (e.g., copper cyanide, cyanide salts, potassium cyanide, sodium cyanide, vanadium pentoxide, formic acid, etc.). In addition, clean closure was not achieved due to fluoride concentrations remaining above cleanup levels. Therefore, fluoride should be identified as a dangerous constituent. Underlying hazardous constituents associated with Basin 4 solids include antimony, cadmium, lead, and thallium. Therefore, antimony, cadmium, lead, and thallium should be identified as dangerous constituents. Ecology should also evaluate the basis for the "WT01" waste code and add respective dangerous constituents to this section. Lastly, it is this commenter's understanding that a former Ecology employee named Jeanne Wallace was provided an excel file containing the 183-H basin waste analytical data reported for the 1995 waste testing campaign. The analytical data should be evaluated and waste constituents added as applicable.	All the metals and cyanide are being monitored and none have exceeded the DWS in any of the monitoring wells. An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Alisa Huckaby	183-H	Addendum D, Section D.1.1.1: The wording about fluoride and uranium being indicators should be deleted. Fluoride and uranium are dangerous constituents.	Uranium is not a dangerous waste and is under AEA monitoring. Fluoride concentrations are monitored and the concentration results have been between 70 ug/l to 300 ug/L. This concentration range is one order of magnitude below the DWS of 4,000 ug/L for fluoride. An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Alisa Huckaby	183-H	Addendum D, Section D.1.1.2: concentration limits should be specified for all dangerous constituents identified in Section D.1.1.1.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Alisa Huckaby	183-H	Addendum D, Section D.1.1.3: The wells that will be monitored for point of compliance should be updated. The update should address the pump-and-treat system's configuration changes (injection wells changed to extraction wells, etc.) and to the fact that a new well was constructed through the unit.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance, and reflects current pump-and-treat configurations.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	183-H	Addendum D, Section d.1.1.4: The paragraph on lines 20 through 24 should be deleted. As the groundwater monitoring network is deficient (and has been for years), the groundwater monitoring program is deficient (and has been for years), clean closure was not achieved, and no RCRA cap exists, USDOE cannot demonstrate that the groundwater protection standards of WAC 173-303-645(3) have been met after three years of sampling.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Alisa Huckaby	183-H	Addendum D: The addendum should be re-written to identify that groundwater corrective action to satisfy WAC 173-303-645(11) is not occurring in relation to releases from the 183-H.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Alisa Huckaby	183-H	Addendum D, Table 3.1: The table indicates RCRA and CERCLA remediation activities. Because Addendum D is supposed to include enforceable provisions, it is requested that “CERCLA remediation activities” be deleted from the addendum.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance. CERCLA activities are maintained for chromium and nitrate contamination in the groundwater as part of pump-and-treat operations and not subject to conditions of the Hanford RCRA Permit.
Alisa Huckaby	183-H	Addendum D, Table 3-2: The table indicates RCRA and CERCLA monitoring analytes and parameters. Because Addendum D is supposed to include enforceable provisions, it is requested that “CERCLA remedial investigation monitoring” analytes and parameters be deleted from the addendum.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance. CERCLA activities are maintained for chromium and nitrate contamination in the groundwater as part of pump-and-treat operations and not subject to conditions of the Hanford RCRA Permit.
Alisa Huckaby	183-H	Addendum D, Table 3-3: The table provides the CERCLA interim remedial measure groundwater well network. Because Addendum D is supposed to include enforceable provisions, it is requested that “CERCLA interim remedial measure groundwater well network” information be deleted from the addendum.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance. CERCLA activities are maintained for chromium and nitrate contamination in the groundwater as part of pump-and-treat operations and not subject to conditions of the Hanford RCRA Permit.
Alisa Huckaby	183-H	Condition VI.2.1 and Addendum K: The permit condition and addendum K should specify a regulation and corresponding standard. It is noted that the corrective action plan appears to be attempting to address or rectify problems associated with the closure plan (i.e., no RCRA cap). If Ecology has made a mistake in accepting the closure certification without requiring USDOE to satisfy closure performance standards of WAC 173-303-610, the Fact Sheet should acknowledge this mistake and the omnibus authority of WAC 173-303-815 or some such RCRA authority should be used to require additional action (i.e., remediation).	Add-K is being retained for post-closure and corrective action requirements are referenced as applicable for 100-HR-3 OU per WAC 173-303-645(1)(f).

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	183-H	Condition VI.2.B and Addendum H: Neither the condition nor the addendum specify post-closure standards. Include post-closure requirements specified by WAC 173-303-610(7), (8), (9), and (10).	183-H SEB has entered post-closure status under WAC 173-303-610(8), therefore a closure plan is no longer required.
Alisa Huckaby	183-H	Condition VI.2.B.2: The condition requires submittal of a detailed plan for a final cover that complies with surface impoundment closure requirements. The fact sheet indicates a closure certification was accepted and these permit conditions have been placed in Part VI (Post Closure Units) of the permit. The basis for requiring a final cover (which is closure-related) has not been specified by the permit. If Ecology has made a mistake in accepting the closure certification without requiring USDOE to satisfy closure performance standards of WAC 173-303-610, the Fact Sheet should acknowledge this mistake and the omnibus authority of WAC 173-303-815 or some such RCRA authority should be used to require additional action (i.e., remediation).	183-H SEB has entered post-closure status under WAC 173-303-610(8), therefore a closure plan is no longer required.
Alisa Huckaby	1324-N	Conditions, Unit Description: It is this commenter's understanding that the pipelines associated with the 1324-N/NA have not been removed. The unit description does not identify that the pipelines associated with the 1324-N/NA have not been removed. Because the pipelines have not been removed and there is no RCRA cap, closure performance standards of WAC 173-303-610(2) have not been satisfied. Therefore, the unit should be placed in Part V (closure units) of the permit.	The certification of closure stated that the pipelines did not need to be removed due to all closure performance standards being met allowing for clean closure. The Corrective Measures Study (100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan, DOE/RL-96-39, Rev. 1A soil investigation indicated that there are no dangerous waste constituents for these DWMUs. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Conditions, Unit Description: From DOE/RL-2008-46, ADD5 Revision 0, it is indicated that the following maximum contaminants were observed from pipeline scale samples: 211 mg/kg barium, 31.3 total chromium, 30.9 mg/kg copper, 20.8 mg/kg lead, 0.83 mg/kg mercury, 20.3 mg/kg nickel, 608 mg/kg zinc, and 460 mg/kg sulfate. All contaminant concentrations exceed Hanford sitewide soil background 90 and 95% UCL (DOE/RL-92-24. It is requested that this information be added to the Unit Description. Again, if the pipelines associated with the 1324-N/NA have not been removed, the unit should be placed in Part V (closure units) of the permit.	The certification of closure stated that the pipelines did not need to be removed due to all closure performance standards being met allowing for clean closure. The Corrective Measures Study (100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan, DOE/RL-96-39, Rev. 1A soil investigation indicated that there are no dangerous waste constituents for these DWMUs. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Conditions, Unit Description: Apparently, Ecology has accepted the cleanup verification package (CVP-2001-0021, Rev. 0) as demonstration that RCRA closure standards of WAC 173-303-610(2) have been satisfied. The unit description should indicate that the cleanup verification package justified leaving the pipeline in place because “all pipeline scale concentrations are below the soil direct exposure remedial action goals”. Clearly, CERCLA remedial action goals are not synonymous with the RCRA closure performance standards (i.e., MTCA B cleanup levels). It is inappropriate for Ecology to have accepted the CERCLA cleanup verification package as satisfying RCRA closure performance standards of WAC 173-303-610(2).	The certification of closure stated that the pipelines did not need to be removed due to all closure performance standards being met allowing for clean closure. The Corrective Measures Study (100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan, DOE/RL-96-39, Rev. 1A soil investigation indicated that there are no dangerous waste constituents for these DWMUs. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Conditions, Unit Description: Apparently, Ecology has accepted the cleanup verification package (CVP-2001-0021, Rev. 0) as demonstration that RCRA closure standards of WAC 173-303-610(2) have been satisfied. The CERCLA cleanup verification package (CVP-2001-0021, Rev. 0) identifies the following contaminants as "contaminants of concern": barium, total chromium, copper, lead, mercury, nickel, sulfate, and zinc. The fact sheet indicates the waste consisted of: listed waste (F003), toxicity characteristic waste (D006, D007, D008, and D009), corrosivity characteristic waste (D002), state-only carcinogenic waste (WC02), and state-only (WT02). Because the cleanup verification package did not verify WAC 173-303-610(2) closure performance standards (i.e., MTCA B) were met for F003 organics, cadmium, and whatever waste constituents were present in WC02, WT02, and D002 waste codes, Ecology should not have accepted the cleanup verification package as demonstrating that RCRA closure performance standards of WAC 173-303-610(2) have been satisfied.	The certification of closure stated that the pipelines did not need to be removed due to all performance standards being met. The Corrective Measures Study (100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan, DOE/RL-96-39, Rev. 1A soil investigation indicated that there generally are no contaminants of concern for this waste site.
Alisa Huckaby	1324-N	Conditions, Unit Description: The unit description should clearly identify that the 1996 MTCA cleanup levels were used to satisfy RCRA closure performance standards of WAC 173-303-610. As MTCA 2007 method B cleanup levels are applicable, Ecology should place the 1324-N/NA in Part V (closure units) of the permit and require USDOE to certify that all 1324-N/NA waste constituents have satisfied MTCA 2007 method B cleanup levels.	The certification of closure stated that the pipelines did not need to be removed due to all closure performance standards being met allowing for clean closure. The Corrective Measures Study (100-NR-1 Treatment, Storage, and Disposal Units Corrective Measures Study/Closure Plan, DOE/RL-96-39, Rev. 1A soil investigation indicated that there are no dangerous waste constituents for these DWMUs. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Conditions, Unit Description: The unit description should acknowledge that the cleanup verification package is based on contaminant levels at the base of the remediation and is not based on waste constituent concentrations that may occur (in the vadose zone) beneath the base of remediation. In other words, because the 1324-NA was an unlined disposal unit, contaminant concentrations beneath the extent of remediation may easily be higher than those used to certify "clean closure". This concern is supported by groundwater monitoring data that indicates releases from the 1324-N/NA have negatively impacted groundwater quality. Because Ecology has not evaluated contaminant concentrations beneath the extent of remediation, Ecology's basis for accepting the CERCLA cleanup verification package as satisfying closure performance standards of WAC 173-303-610(2) is inadequate.	The closure report demonstrates that this site including the associated pipelines have achieved the soil closure performance standards established in the CMS/CP (DOE/RL-96-39, Rev. 1A). The pipe scale results indicate that residual concentrations in soil and pipeline scale will support future land uses that can be represented (or bounded) by a rural-residential scenario, and that residual concentrations throughout the site are protective of groundwater and the Columbia River. The soils underlying these sites and the abandoned influent pipelines are verified to meet the cleanup levels and closure performance standards. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Condition VI.4.B. and Addendum K: Neither the condition nor the addendum specify post-closure standards (i.e., WAC 173-303-610(7), (8), (9), and (10)). Due to the absence of such standards and the 1324-N/NA conditions being placed in the wrong part of the permit, the permit is poorly crafted, unenforceable, and subject to legal challenge.	Condition VI.4.D.1 speaks to WAC 173-303-610(8). The references to WAC173-303-610 (7), (9), and (10) are not referred to. Because 1324-N/NA meet closure performance standards in WAC 173-303-610(2), no post-closure care addendum is required. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Condition VI.4.B.1: Addendum H is reserved. The condition should reference Addendum K.	This condition will be deleted. Because 1324-N/NA meet closure performance standards in WAC 173-303-610(2), no post-closure addendum is required. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum K: The addendum references a closure plan included in "Addendum H". Addendum H is reserved. Addendum K should be re-written to accurately describe the permit and what Ecology has accepted as satisfying closure performance standards of WAC 173-303-610(2). Due to the lack of an adequate basis (i.e., WAC 173-303-610(2) closure performance standards have clearly not been satisfied, thus the 1324-N/NA conditions have been placed in the wrong part of the permit), the permit is poorly crafted, unenforceable, and subject to legal challenge.	This addendum will be deleted. Because 1324-N/NA meet closure performance standards in WAC 173-303-610(2), no post-closure addendum is required. A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Condition VI.4.D.1: The condition cites requirements in WAC 173-303-610(8). Per WAC 173-303-645, the permit should specify dangerous groundwater protection standards including: constituents (-645(4)), dangerous constituent concentration limits (-645(5)), point of compliance (-645(6)), compliance period (-645(7)), compliance monitoring requirements (-645(10)), etc. As written, the permit is unenforceable against the groundwater protection standards of WAC 173-303-645(3).	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Condition VI.4.D.1: Because the condition is incorporating requirements and schedules in a document that doesn't exist, the condition should be deleted. Once the document exists, Ecology should modify this permit and incorporate the requirements and schedules.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D: The addendum indicates (and references) a 1996 interim status groundwater monitoring plan is being followed to satisfy WAC 173-303-645 groundwater protection standards. It is incredible that Ecology did not get an updated groundwater monitoring plan for the 1324-N/NA to include in this permit. Because the 1996 plan is so out-of-date and deficient, Ecology should not have determined that USDOE's permit application was "complete". This commenter interprets the use of the 1996 groundwater monitoring plan as an indication that RCRA groundwater protection is not a high priority for Ecology.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D: The addendum cites specific groundwater sampling procedures to be followed. For enforceability, the groundwater sampling procedures should be described in Addendum D. By citing specific groundwater sampling procedures (maintained by Hanford Site contractors [past and present]), it is implied that Ecology may enforce against those procedures.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Addendum D, Section D.2.1: The section is years out of date as it describes an anticipated schedule of construction of well 199-N-165. Well 199-N-165 exists. The section should be re-written.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Table D3.1: The table is out of date. Well 199-N-165 exists. The table should be re-done.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Table D3.2: The table specifies samples to be analyzed for metals should be filtered. This is against Ecology's and EPA's August 7, 2007 letter regarding "Field-Filtering of Ground Water Samples Prior to Laboratory Analysis". The table should be re-done to not allow filtering of samples prior to laboratory analysis for metals.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Addendum D, Section D.4.1: It is stated: "Groundwater monitoring will be done in accordance with the existing groundwater-monitoring program (Borghese, et. Al., 1996)." The current groundwater monitoring program is significantly deficient (primarily consisting of an interim status indicator parameter program) and does not satisfy WAC 173-303-645 groundwater protection standards. This commenter interprets the use of the 1996 groundwater monitoring plan to satisfy the RCRA groundwater protection standards of WAC 173-303-645(4), (5), (6), (7), and (11) an indication that RCRA groundwater protection is not a high priority for Ecology. Due to the numerous mistakes of Addendum D, the use of an out-dated groundwater monitoring program, the addendum (thus the permit) is poorly crafted, unenforceable, and subject to legal challenge. Addendum D should be completely re-written by Ecology staff who are knowledgeable about RCRA groundwater requirements and hydrogeology.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Section D.4.1: It is stated: "A corrective action program to remove or treat the sulfate will be determined in a final ROD for the 100-NR-2 OU." This statement is disingenuous as the CERCLA feasibility study's risk assessment will very likely determine that the sulfate contamination from the 1324-N/NA does not warrant removal or treatment. The statement should be deleted.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Section D.4.1: It is stated: "The presence of a sulfate plume attributable to past operations at 1324-N and 1324-NA will require that a corrective action program (WAC 173-303-645[11]) be implemented upon the effective date of the modification of the Permit adding these closure units." Although the 1324-N/NA should be added to Part V of the permit, it has been added to Part VI and the wording is inaccurate.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure."

Commenter	Unit Group	Comment	Comment Response
			A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Section D.4.2: It is stated: "Repairs are made according to approved contractor procedures." This statement represents a non-enforceable statement and should be replaced by an identification of which procedures have been approved by Ecology and cite the appropriate WAC that will be satisfied (i.e., WAC 173-160).	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Addendum D, Section D.4.2: It is stated: "Subsurface inspection and maintenance is performed on a 3- to 5-year schedule, or as needed to repair problems identified during sampling." This statement represents a non-enforceable statement and an out-of-date schedule and should be replaced by meaningful criteria (e.g., well re-development due to elevated turbidity conditions noted during sampling, camera inspection due to elevated metal detections, etc.).	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	1324-N	Conditions VI.4.D.3.b and c: The groundwater monitoring constituents are not sufficiently comprehensive. The fact sheet indicates the waste consisted of: listed waste (F003), toxicity characteristic waste (D006, D007, D008, and D009), corrosivity characteristic waste (D002), state-only carcinogenic waste (WC02), and state-only (WT02). The conditions should include additional waste constituents.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Alisa Huckaby	1324-N	Condition VI.4.D.5: The condition requires the permittees to “evaluate the effectiveness of the 100-NR-2 remedy for groundwater”. This permit does not specify a remedy for groundwater releases from the 1301-N LWDF. Per WAC 173-303-645, the requirement should be specific to RCRA constituents associated with the 1301-N LWDF. As written, the condition is meaningless and unenforceable.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. The condition will be deleted. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Alisa Huckaby	1324-N	Conditions VI.4.D.5 and VI.4.D.6: Neither condition requires the permittee to track the groundwater contamination from the 1324-N/NA. Additional conditions are needed to require the permittee to characterize the nature and extent of the groundwater contamination from the 1324-N/NA.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Condition III.3.R.1.e.1.iii: The condition requires an upgradient or downgradient well designation. This is an inappropriate permit condition as the upgradient or downgradient well designation should already be known. As required by WAC 173-303-645, the permit should specify groundwater protection standards. Clearly, the permit is unable to ensure that WAC 173-303-645(8) requirements will be satisfied. Considering that this is a permit for an operating regulated unit, this condition provides the basis for Ecology to require vadose zone monitoring. Considering that the LERF groundwater monitoring program and network have not satisfied groundwater protection standards of WAC 173-303-645 for over a decade, this commenter interprets the long-standing non-compliance and these permit conditions an indication that RCRA groundwater protection is not a high priority for Ecology. It is requested that Ecology require vadose zone monitoring at this RCRA facility.	Vadose zone monitoring at LERF will not be required by Ecology at this time, however, the need for it at LERF, and elsewhere on the Hanford Site, is being evaluated as part of the sitewide vadose zone monitoring program. An additional downgradient well was installed at LERF in the first half of 2014. Data from this well was evaluated in conjunction with data from the other upgradient and downgradient wells at LERF to determine the adequacy of the existing groundwater monitoring network and the potential benefit of vadose zone monitoring. Ecology's groundwater and vadose zone monitoring staff reviewed the data and do not see a need for vadose monitoring. In the meantime, the LERF basins have double liners with leachate collection underlain by a clay soil barrier layer. A very small amount of water wicks through the primary liner and is pumped out of the sump between the liners. Without a driving head on the secondary liner there is no reason to believe that any leachate is getting through this liner and there has never been any indication of a leak. Ecology will require that DOE continue to study the viability and adequacy of the groundwater monitoring network and the potential need for vadose zone monitoring at LERF as more data become available.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Condition III.3.R.1.e.1.iii and Addendum D: Figure D.1 indicates the groundwater monitoring wells are located on the southern portion of the LERF. Results of Detailed Hydrologic Characterization Tests Fiscal Year 2003 (PNNL-14804) indicates “a predominant northwesterly groundwater flow direction, which parallels the basalt sub crop pattern (i.e., basalt surface above the water table)”. As such, it appears there are no downgradient groundwater monitoring wells. As such, the groundwater monitoring network does not satisfy WAC 173-303-645(8) requirements. Considering that the LERF groundwater monitoring program and network have not satisfied groundwater protection standards of WAC 173-303-645 for over a decade, this commenter interprets the long-standing non-compliance and these permit conditions an indication that RCRA groundwater protection is not a high priority for Ecology. It is requested that Ecology require vadose zone monitoring at this RCRA facility.	Considerably more hydrogeologic investigation has been conducted at the LERF basins since 2003 and a lot more information is known. In a nut shell, as a result of a comprehensive investigation, characterization, well installation, and data evaluation effort conducted in the 2008 to 2014 time frame, a RCRA compliant groundwater monitoring system has been established at the LERF basins. Wells 299-E26-77 and 299-E26-79 were drilled and completed in 2008 to define the aquifer flow rate, flow direction, and hydrogeologic conditions (SGW-41072, Liquid Effluent Retention Facility Characterization Report). These wells are located west and south of LERF, respectively, and were sampled concurrently with existing wells beginning in January 2009. Well 299-E26-77, a replacement well for well 299-E26-9, was located approximately 5 m (15 ft) to the southeast of well 299-E26-9. Water level measurements, after incorporation of the two new wells (299-E26-77 and 299-E26-79), demonstrated two different flow conditions depending on the wells used to derive the flow gradient. A westerly flow was derived when incorporating well 299-E26-11 and more southerly flow direction was derived when data for well 299-E26-11 are not incorporated (SGW-41072). Because of the uncertainty in flow direction, another well, 299-E26-14, was installed north of LERF to clarify the current groundwater flow direction. A geophysical investigation was employed to target the best hydraulic location for well 299-E26-14, as discussed further in Section D2.1.1 of DOE/RL-2013-46. In September 2011, well 299-E26-14 was installed. After two years of water level measurements using well 299-E26-14 and the three other wells (299-E26-10, 299-E26-77, and 299-E26-79), the flow direction was considered southward (discussed further in Section 2.2.2 of DOE/RL-2013-46). Various chemical analyses were completed over the past two years to provide an upgradient baseline for dangerous waste constituents specified for the permit modification approved in 2014. Based on these findings, vadose zone monitoring at LERF will not be required by Ecology at this time, however, the need for it at LERF, and elsewhere on the Hanford Site, will continue to e evaluated as part of the sitewide vadose zone monitoring program. Data from all LERF wells will continue to be evaluated to determine the long-term adequacy of the existing groundwater monitoring network and the potential benefit of vadose zone monitoring.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Condition III.3.R.1.e.1.i and Addendum D: The condition specifies groundwater sample results from a new well (299-E26-14) to be used. As Addendum D does not describe the new well, Addendum D is incomplete and should be updated. Apparently, Ecology has used an out-of-date document to support issuance of this permit. Considering that the LERF groundwater monitoring program and network have not satisfied groundwater protection standards of WAC 173-303-645 for over a decade, this commenter interprets the long-standing non-compliance and the use of an out-of-date groundwater monitoring description an indication that RCRA groundwater protection is not a high priority for Ecology.	The groundwater monitoring requirements and the associated dangerous waste permit conditions for the LERF basins are being reevaluated and updated in the preparation of Rev. 9 of the Hanford dangerous waste permit. As part of the work, all the requirements of WAC 171-303-645 will be met by the permit conditions, including requirements to evaluate the need for additional groundwater monitoring wells, additional monitoring, etc. The permit will be enforceable and will ensure that groundwater protection standards are being met. RCRA compliance for all units of the Hanford permit is a priority for DOE and COE's contractors, as well as for Ecology, and we have always worked together, and will continue to work together, to do our best to accomplish this objective.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Condition III.3.R.1.e.1.i and Addendum D: The condition indicates another groundwater monitoring well will be used to supplement the existing groundwater monitoring network. Even if the new well is located on the northwestern side of the LERF, it is insufficient to satisfy WAC 173-303-645(8) requirements with a northwesterly groundwater flow direction (PNNL-14804). It is requested that Ecology require vadose zone monitoring at this RCRA facility.	Considerably more hydrogeologic investigation has been conducted at the LERF basins since 2003 and a lot more information is known. In a nut shell, as a result of a comprehensive investigation, characterization, well installation, and data evaluation effort conducted in the 2008 to 2014 time frame, a RCRA compliant groundwater monitoring system has been established at the LERF basins. Wells 299-E26-77 and 299-E26-79 were drilled and completed in 2008 to define the aquifer flow rate, flow direction, and hydrogeologic conditions (SGW-41072, Liquid Effluent Retention Facility Characterization Report). These wells are located west and south of LERF, respectively, and were sampled concurrently with existing wells beginning in January 2009. Well 299-E26-77, a replacement well for well 299-E26-9, was located approximately 5 m (15 ft) to the southeast of well 299-E26-9. Water level measurements, after incorporation of the two new wells (299-E26-77 and 299-E26-79), demonstrated two different flow conditions depending on the wells used to derive the flow gradient. A westerly flow was derived when incorporating well 299-E26-11 and more southerly flow direction was derived when data for well 299-E26-11 are not incorporated (SGW-41072). Because of the uncertainty in flow direction, another well, 299-E26-14, was installed north of LERF to clarify the current groundwater flow direction. A geophysical investigation was employed to target the best hydraulic location for well 299-E26-14, as discussed further in Section D2.1.1 of DOE/RL-2013-46. In September 2011, well 299-E26-14 was installed. After two years of water level measurements using well 299-E26-14 and the three other wells (299-E26-10, 299-E26-77, and 299-E26-79), the flow direction was considered southward (discussed further in Section 2.2.2 of DOE/RL-2013-46). Various chemical analyses were completed over the past two years to provide an upgradient baseline for dangerous waste constituents specified for the permit modification approved in 2014. Based on these findings, vadose zone monitoring at LERF will not be required by Ecology at this time, however, the need for it at LERF, and elsewhere on the Hanford Site, will continue to e evaluated as part of the sitewide vadose zone monitoring program. Data from all LERF wells will continue to be evaluated to determine the long-term adequacy of the existing groundwater monitoring network and the potential benefit of vadose zone monitoring.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Addendum D.3.4: The text in the addendum should correctly describe the point of compliance requirement of WAC 173-303-645(6)(a). The text should state: "The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units." The words "at the hydraulically downgradient limit of the waste management area" have been omitted and should be inserted. The omission renders the definition of the point of compliance meaningless. It should be noted that once the RCRA permit is issued, the permittees may use the permit as a "shield" against WAC requirements. Therefore, it is all the more important that the permit correctly specify WAC 173-303-645 standards and requirements. Otherwise, the permit is unenforceable. As written, Section D.3.4 in no way, shape, or form, ensures groundwater protection standards of WAC 173-303-645 will be satisfied.	The groundwater monitoring requirements and the associated dangerous waste permit conditions for the LERF basins are being reevaluated in the preparation of Rev. 9 of the Hanford dangerous waste permit. As part of the work, all the requirements of WAC 171-303-645 will be met, including evaluating the need for any additional groundwater monitoring wells, additional monitoring, etc. The permit will be enforceable and will ensure that groundwater protection standards are being met.
Alisa Huckaby	LERF/ETF	Condition III.3.R and Addendum D.3.5: Neither permit Conditions III.3.R nor Addendum D.3.5 text specifies a compliance period. WAC 173-303-645(7) requires the department to "specify in the facility permit the compliance period during which the ground water protection standard of subsection (3)" applies. Furthermore, Section D.3.5 appears to mistakenly equate the WAC 173-303-645(7) "compliance period" with the WAC 173-303-645(10) "compliance monitoring program". A compliance period as required by WAC 173-303-645(7) should be specified in the permit. Again, it should be noted that once the RCRA permit is issued, the permittees may use the permit as a "shield" against WAC requirements. Therefore, it is all the more important that the permit correctly specify WAC 173-303-645 standards and requirements. Otherwise, the permit is unenforceable. As written, neither Condition III.3.R nor Section D.3.5 in no way, shape, or form, ensure groundwater protection standards of WAC 173-303-645 will be satisfied.	The groundwater monitoring requirements and the associated dangerous waste permit conditions for the LERF basins are being reevaluated and updated in the preparation of Rev. 9 of the Hanford dangerous waste permit. As part of the work, all the requirements of WAC 171-303-645 will be met by the permit conditions, including the requirement for a compliance period, if needed. Based on all the work that has been completed at the LERF basins with regard to installing additional wells and making the groundwater monitoring system compliant, Ecology believes that the current system is compliant. However, as part of developing Rev. 9 of the permit, the GW monitoring plan and the monitoring system at LERF will be reevaluated and updated as, or if, needed. The permit will be enforceable and will ensure that groundwater protection standards are being met.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Addendum D.3.9.6: The section describes how groundwater monitoring data will be statistically analyzed. As the majority of the existing LERF wells appear to be upgradient (PNNL-14804), any statistical analysis is meaningless. It is requested that Ecology require vadose zone monitoring at this RCRA facility.	After the issuance of the Rev9 (2012) Draft Renewal version of the LERF GWMP, revisions to the interpretations of past geophysical and borehole data resulted in updates to the geoframework model and the groundwater regime model, which combined had impacts to the geologic setting (basalt and permeable basalt) and groundwater regime/flow direction beneath LERF/ETF. These revised geologic/hydrogeologic model interpretations are different from geologic/hydrogeologic conditions presented in the Engineering Evaluation Report and prior versions of the GWMP, specifically the evaluation/selection of groundwater wells associated groundwater monitoring well network, which have been addressed but not in an updated version of the GWMP. Revisions to the monitoring well network since the Rev9 (2012) Draft Renewal version of the LERF GWMP was issued to includes wells being eliminated from the monitoring well network and replacement of wells which are, or will be, going dry and installation of additional monitoring wells to augment the existing wells (all conditions which are addressed in your comments). The recent Hanford Site RCRA Groundwater Monitoring Report for 2023 (DOE-RL-2023-53_R0) depicts the current geologic framework and the current monitoring well network for LERF and supersedes the site information presented in the Rev9 LERF GWMP. It is anticipated that a revised LERF/ETF GWMP incorporating the various changes to the geoframework, the groundwater flow regime, and the monitoring well network will be prepared after issuance of the Rev9 Permit. Vadose zone monitoring at LERF will not be required by Ecology at this time.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	Addendum D.3.9.6: The section describes how groundwater monitoring data will be statistically analyzed using the combined Shewhart/CUSUM control chart. A May 7, 2001 Ecology letter from D. Goswami to M.J. Furman provides criteria to be met prior to receiving approval of use of this statistical evaluation method. Addendum D.3.6.2 indicates that "background conditions for dangerous constituents" are yet to be established. Therefore, it is concluded that established background conditions have not been evaluated to determine if this statistical analytical evaluation method is appropriate. It is requested that Ecology not allow this intra-well statistical comparison method until: 1) at least 2 additional upgradient wells have been installed, 2) background conditions have been established, and 3) the criteria identified in Ecology's May 7, 2001 letter is satisfied. In addition, due to the deficiencies associated with the groundwater monitoring network and program, it is requested that Ecology require vadose zone monitoring at this RCRA facility.	After the issuance of the Rev9 (2012) Draft Renewal version of the LERF GWMP, revisions to the interpretations of past geophysical and borehole data resulted in updates to the geoframework model and the groundwater regime model, which combined had impacts to the geologic setting (basalt and permeable basalt) and groundwater regime/flow direction beneath LERF/ETF. These revised geologic/hydrogeologic model interpretations are different from geologic/hydrogeologic conditions presented in the Engineering Evaluation Report and prior versions of the GWMP, specifically the evaluation/selection of groundwater wells associated groundwater monitoring well network, which have been addressed but not in an updated version of the GWMP. Revisions to the monitoring well network since the Rev9 (2012) Draft Renewal version of the LERF GWMP was issued to includes wells being eliminated from the monitoring well network and replacement of wells which are, or will be, going dry and installation of additional monitoring wells to augment the existing wells (all conditions which are addressed in your comments). The recent Hanford Site RCRA Groundwater Monitoring Report for 2023 (DOE-RL-2023-53_R0) depicts the current geologic framework and the current monitoring well network for LERF and supersedes the site information presented in the Rev9 LERF GWMP. It is anticipated that a revised LERF/ETF GWMP incorporating the various changes to the geoframework, the groundwater flow regime, and the monitoring well network will be prepared after issuance of the Rev9 Permit.
Alisa Huckaby	LERF/ETF	Addendum D.3.6.3: The text states: "Dissolved trace metals analysis (from filtered samples) will be used for statistical analyses of trace metal arsenic." This is against Ecology's and EPA's August 7, 2007 letter regarding "Field-Filtering of Ground Water Samples Prior to Laboratory Analysis". The text should state: "Metals analysis from unfiltered samples will be used for statistical analyses of trace metal arsenic."	The text has been edited to require both filtered and non-filtered samples for metals analysis.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LERF/ETF	New Vadose Zone Monitoring Conditions: Via a public disclosure request, this commenter obtained draft permit conditions to require the permittee to evaluate unsaturated zone (i.e., vadose zone) monitoring alternatives. These permit conditions were drafted years ago (the version that this commenter obtained is dated 2/29/2008). It is this commenter's understanding that either Ecology's intent to issue permit conditions requiring vadose zone monitoring or some version of these conditions were shared with USDOE and that USDOE threatened to challenge the permit if such conditions were used. Subsequently, the draft permit conditions were not used. It is this commenter's assertion that such undue influence is inappropriate. Please find the draft permit conditions attached. It is requested that Ecology formally notify the permittee that Ecology has determined that the groundwater protection standards of WAC 173-303-645 have not been satisfied. In addition, it is requested that Ecology include the attached or very similar permit conditions for "LERF unsaturated zone monitoring alternative evaluation and implementation [WAC 173-303-815(3), WAC 173-303-815(2)(b)(ii), WAC 173-303-283]".	Vadose zone monitoring at LERF will not be required by Ecology at this time, however, the need for it at LERF, and elsewhere on the Hanford Site, will be evaluated as part of the sitewide vadose zone monitoring program. Ecology's groundwater and vadose zone monitoring staff will review the data and future reports on this matter to determine the need. The LERF basins have double liners with leachate collection underlain by a clay soil barrier layer. A very small amount of water wicks through the primary liner and is pumped out of the sump between the liners. Without a driving head on the secondary liner there is no reason to believe that any leachate is getting through this liner and there has never been any indication of a leak. Ecology will require that DOE continue to study the viability and adequacy of the groundwater monitoring network and the potential need for vadose zone monitoring at LERF as more data become available.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.18.O: The permit should include a requirement for the permittee to evaluate vadose zone monitoring for integration with groundwater monitoring to satisfy WAC 173-303-645 requirements. Via a public disclosure request, this commenter obtained draft LERF permit conditions to require the permittee to evaluate unsaturated zone (i.e., vadose zone) monitoring alternatives. These permit conditions were drafted years ago (the version that this commenter obtained is dated 2/29/2008). It is this commenter's understanding that either Ecology's intent to issue permit conditions requiring vadose zone monitoring or some version of these conditions were shared with USDOE and that USDOE threatened to challenge the permit if such conditions were used. Subsequently, the draft permit conditions were not used. It is this commenter's assertion that such undue influence is inappropriate. Please find the draft permit conditions attached. It is requested that Ecology formally notify the permittee that Ecology has determined that the groundwater protection standards of WAC 173-303-645 have not been satisfied for LLBG Trench 94. In addition, it is requested that Ecology include the attached or very similar permit conditions for "unsaturated zone monitoring alternative evaluation and implementation [WAC 173-303-815(3), WAC 173-303-815(2)(b)(ii), WAC 173-303-283]".	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.18.O.2 and 3: The permit requires a "geophysical investigation" to be completed by September 30, 2014. The permit should require submittal of an investigation plan for Ecology's approval. The permit condition should be re-written to require the submittal of a plan. In addition, the permit condition should specify what investigative elements and requirements are to be included in the plan.	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.18.O.3: The permit requires submittal of a groundwater monitoring plan in 2015. Because Ecology accepted USDOE's permit application as "complete", Ecology should be able to specify groundwater and vadose zone evaluation requirements in the RCRA permit that will satisfy WAC 173-303-645 groundwater protection requirements. The use of a long-term compliance schedule in this fashion is inappropriate. It simply should not take a year to conduct a geophysical investigation and it should not take six months to submit a plan.	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.18.O.3: The permit condition states: "Should it be determined that groundwater monitoring wells are not feasible, the Permittees will submit a plan for achieving regulatory compliance." The condition is poorly crafted. Who will make the determination that "groundwater monitoring wells are not feasible". If the uppermost (confined) aquifer is 2,000 feet below ground surface, groundwater monitoring wells are "feasible". The permit condition should specify the uppermost unconfined aquifer as being criteria to satisfy. In addition, the permit condition should specify who (Ecology or the permittee?) will make the determination that groundwater monitoring wells are not feasible. In addition, the permit condition should include criteria for how the permittee will achieve "regulatory compliance" in the event that it is determined that groundwater monitoring wells are not feasible. At the very least, the criteria should include a requirement for vadose zone monitoring beneath the LLBG Trench 94 liner to detect moisture.	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.17.Q: Because Ecology accepted USDOE's permit application as "complete", Ecology should be able to specify groundwater monitoring requirements in the RCRA permit that will satisfy WAC 173-303-645 groundwater protection requirements. The use of a compliance schedule in this fashion is inappropriate. This commenter interprets the use of the 2011 groundwater monitoring plan which identifies the upgradient wells have all gone dry in 2004 (meaning the groundwater monitoring network and program has been non-compliant since 2004) as an indication that RCRA groundwater protection is not a high priority for Ecology. Condition III.17.Q should specify in detail what the plan to be submitted under Condition III.17.Q.2 should include. Condition III.17.Q should prescriptively specify what the permittee will include in the plan to be submitted under Condition III.17.Q.2 to gain compliance (i.e., a schedule for construction of new upgradient groundwater monitoring wells, the location(s) the new groundwater monitoring well(s) will be constructed, the design of the new groundwater monitoring well(s), the waste constituents that will be monitored, the frequency of monitoring, the method of statistical analysis of monitoring results, etc.).	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LLBG Trenches 31/34/94	Condition III.17.Q: Because the groundwater monitoring network and program are deficient and will not satisfy groundwater protection standards of WAC 173-303-645 with the construction of 1 new upgradient monitoring well, the permit should include a requirement for the permittee to evaluate vadose zone monitoring for integration with groundwater monitoring to satisfy WAC 173-303-645 requirements. Via a public disclosure request, this commenter obtained draft LERF permit conditions to require the permittee to evaluate unsaturated zone (i.e., vadose zone) monitoring alternatives. Please find the draft permit conditions attached. It is requested that Ecology formally notify the permittee that Ecology has determined that the groundwater protection standards of WAC 173-303-645 have not been satisfied for LLBG Trenches 31 & 34. In addition, it is requested that Ecology include the attached or very similar permit conditions for "unsaturated zone monitoring alternative evaluation and implementation [WAC 173-303-815(3), WAC 173-303-815(2)(b)(ii), WAC 173-303-283]".	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
Alisa Huckaby	LLBG Trenches 31/34/94	Addendum D: The groundwater monitoring plan indicates a new upgradient well is "planned for late fiscal year 2011 construction". Such wording is non-enforceable. Has the well been constructed? If not, it is recommended that Permit Condition III.17.Q include a requirement for installation/construction of well 299-W9-2 within 30 days of the effective date of this permit.	Addendum D (Groundwater Monitoring Plan) was revised to include the most recent groundwater monitoring network and has updated information on planned well installations.
Alisa Huckaby	LLBG Trenches 31/34/94	Addendum D: It appears the downgradient network consists of only 3 wells that monitor the uppermost portion of the unconfined aquifer. Considering the location of these wells in relation to trenches 31 and 34, it is unlikely that these 3 wells will detect a release from trenches 31 and 34. As such, this commenter concludes this groundwater monitoring network does not satisfy the groundwater protection standards of WAC 173-303-645. This commenter concludes that RCRA groundwater protection is not a high priority for Ecology.	Addendum D (Groundwater Monitoring Plan) was revised to include the most recent groundwater monitoring network and has updated information on planned well installations.
Alisa Huckaby	LLBG Trenches 31/34/94	Fact Sheet: The fact sheet describes two conditions (Conditions III.17.Q.4 and 5) that do not exist in the draft permit. The fact sheet should agree with the draft permit conditions.	Permit conditions and addenda for these units have been extensively revised. The fact sheet has also been updated to reflect current information.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	LLBG Trenches 31/34/94	Fact Sheet: Because the permit uses a groundwater monitoring network and program that has been non-compliant since 2004, this commenter concludes that RCRA groundwater protection is not a high priority for Ecology. In addition, the groundwater monitoring network and program that is described – even with the construction of a new upgradient well – will not satisfy WAC 173-303-645(8) requirements to have a sufficient number of wells to represent the quality of groundwater passing the point of compliance. If Ecology cannot or will not uphold RCRA requirements, Ecology's fact sheets should clearly identify which RCRA requirements are being waived and/or reduced and a basis for such waivers/reductions be provided. In other words, Ecology should clearly acknowledge the permit's deficiencies and provide a justification for those deficiencies. Specifically, Ecology should acknowledge the long-standing non-compliance and provide an explanation for Ecology's lack of enforcement. In addition, Ecology should also acknowledge the inadequacy of the existing monitoring network (299-W10-30, 299-W10-29, and 299-W10-31) to detect releases from trenches 31 and 34 and provide justification for not upholding the standards and requirements of WAC 173-303-645.	Permit conditions and addenda for these units have been extensively revised. The fact sheet has also been updated to reflect current information. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
Alisa Huckaby	LLBG Trenches 31/34/94	Fact Sheet: The fact sheet describes a compliance schedule for submittal of a groundwater monitoring plan that is not the same as Condition III.17.Q.1. The fact sheet should agree with the draft permit conditions.	Permit conditions and addenda for these units have been extensively revised. The fact sheet has also been updated to reflect current information. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
Alisa Huckaby	LLBG Trenches 31/34/94	Fact Sheet: The fact sheet describes a compliance schedule for submittal of a groundwater flow characterization plan. The permit conditions do not require such a characterization plan. The fact sheet should agree with the draft permit conditions. Furthermore, if groundwater flow direction is unknown, the fact sheet should acknowledge this and permit conditions should be drafted which require the permittee to accurately determine the groundwater flow direction.	Permit conditions and addenda for these units have been extensively revised. The fact sheet has also been updated to reflect current information. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Fact Sheet: It is stated: “The groundwater monitoring under the current assessment monitoring plans have concluded that three WMAs (C, U, A-AX) have impacted groundwater, and that groundwater under two WMAs (S-SX, and B, BX-BY) have been impacted by multiple source locations. No conclusions have been drawn for WMA T and TX-TY. Their groundwater monitoring plans were updated in 2009. However, remedial action is being implemented for groundwater OU, 200-ZP-1, which is right under WMA T and TX-TY, The Record of Decision (ROD) for 200-ZP-1 acknowledges widespread contamination within the unit, without identifying specific sources.” The statement that “no conclusions have been drawn for WMA T and TX-TY” is incredible. The fact sheet should also acknowledge that significant RCRA Facility Investigation/ Corrective Measure Study (RFI/CMS) characterization has been conducted that was intended to allow Ecology to draw conclusions on whether releases from T and TX-TY have negatively impacted groundwater.	The Fact Sheet for the Single-Shell Tank System portion of the Hanford Rev.9 Permit covers impacts to groundwater from treatment, storage, and disposal (TSD)s and past-practice units. Additionally, each WMA in the SST System has an accompanying Groundwater Monitoring Plan (GWMP) that replace their associated interim-status GWMP.
Alisa Huckaby	SST	Fact Sheet: It is stated: “…and that groundwater under two WMAs (S-SX, and B- BX-BY) have been impacted by multiple source locations.” The fact sheet should also acknowledge that significant RCRA Facility Investigation/ Corrective Measure Study (RFI/CMS) characterization has been conducted that definitively allows Ecology to state that releases from S-SX and B-BX-BY WMAs have negatively impacted groundwater. The fact sheet wording should also be revised to clearly identify that releases from S-SX and B-BX-BY WMAs have negatively impacted groundwater.	The Fact Sheet for the Single-Shell Tank System portion of the Hanford Rev.9 Permit covers impacts to groundwater from treatment, storage, and disposal (TSD)s and past-practice units. Additionally, each WMA in the SST System has an accompanying Groundwater Monitoring Plan (GWMP) that replace their associated interim-status GWMP.
Alisa Huckaby	SST	Fact Sheet: It is stated: “The Record of Decision (ROD) for 200-ZP-1 acknowledges widespread contamination within the unit, without identifying specific sources.” This statement adds no value to the Fact Sheet and should be deleted.	This text has since been deleted.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Fact Sheet: It is stated: “With confirmed releases and groundwater contamination, the Permittees must conduct groundwater monitoring as part of the RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) in accordance with WAC 173-303-646…” Actually, RCRA groundwater monitoring must be conducted via WAC 173-303-645 and RCRA corrective action is conducted via WAC 173-303-646. The fact sheet should be corrected.	This citation has since been corrected.
Alisa Huckaby	SST	Fact Sheet and Condition V.4.C.2: The fact sheet states: “Consistent with this, the Permit incorporates the requirements and schedules of operable unit (OU) groundwater performance monitoring to satisfy corrective action performance monitoring.” Actually, Condition V.4.C.2 only incorporates schedules for “performance monitoring” for WMA U, S-SX, C, B-BX-BY, and A-AX. As no RCRA corrective action requirements are specified, the fact sheet should be re-written to clearly identify that no RCRA corrective action requirements are specified by the permit for WMA U, S-SX, C, B-BX-BY, and A-AX.	The fact sheet has been rewritten as follows: "TPA Action Plan Section 5.5 specifies that “CERCLA past-practice authority may provide the most efficient means for addressing mixed waste groundwater contamination plumes originating from a combination of treatment, storage, and disposal (TSD) and past-practice units.” Consistent with this, the Permit may incorporate the requirements and schedules of CERCLA operable unit (OU) groundwater performance monitoring to satisfy dangerous waste regulation corrective action monitoring requirements." The original permit condition V.4.C.2 included performance monitoring for T, TX-TY, S-SX, U, B-BX-BY, and A-AX. This permit condition number is now V.4.D.4 and retains the same WMAs as before.
Alisa Huckaby	SST	Fact Sheet: It is recommended the fact sheet include the following: “The SST System releases have impacted surrounding and underlying soils, vadose zone, and groundwater. The nature and extent of the SST System releases has not been adequately characterized to select a remedy or remedies. The groundwater requirements imposed at this time are three-fold: 1) to detect releases (new and on-going) during SST System operations, 2) to acquire information necessary to select remediation actions, and 3) to develop appropriate monitoring networks and programs for groundwater corrective action to satisfy RCRA groundwater protection standards.”	This comment was taken into consideration for the new permit renewal. The suggested placement of the proposed language was not implemented in the Fact Sheet as the language was not conducive to the generalized text contained within the Fact Sheet. However, similar language can be found in the Closure Plans, Process Information, Leak Response Plan, and documents incorporated by reference to those addenda.
Alisa Huckaby	SST	Conditions: A definition for “corrective action performance monitoring” or “performance monitoring” is needed. If the performance monitoring program of WAC 173-340-410 is intended, the permit should include the WAC 173-340-410 requirements.	WAC 173-340 is incorporated by reference in its entirety in the SST portion of the Hanford Sitewide Rev.9 Permit in condition V.4.D.3.b for groundwater and for cleanup standards for soil and groundwater in condition V.4.H.2.b.i.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.a.i: The condition identifies groundwater assessment plan for WMA A-AX and B-BX-BY “upon approval”. If the plan has not been approved by Ecology, another plan should be used. It is recommended that the “(upon approval)” be deleted. In addition, it is odd that “draft A” versions of the two documents would have to be used. It appears the documents were generated in 2009. As it is 2012, the documents should have been approved. Again, if not approved, the documents should not be used.	This condition has been removed for the Rev.9 permit renewal, and each Single-Shell Tank WMA has their own Groundwater Monitoring Plan.
Alisa Huckaby	SST	Condition V.4.C.1.b: Via a public disclosure request, this commenter obtained draft SST groundwater permit conditions. It is this commenter’s understanding that when Ecology’s management (section and project managers) shared the draft permit conditions with the permittee (USDOE), USDOE threatened to challenge the permit if those conditions were used. Subsequently, none of the 100+ pages of groundwater permit conditions were used. In this way, Ecology has allowed the permittee (USDOE) undue and inappropriate influence which has negatively affected the quality of the draft permit conditions. Please find the draft SST groundwater permit conditions (that were not used after USDOE threatened to challenge the permit) attached. It is requested that Ecology include the draft SST groundwater conditions in the responsiveness summary as well as the explanation for why the draft permit conditions were not used.	Ecology has reviewed extensively and approved final status Groundwater Monitoring Plans (GWMPs) for each of the SST WMAs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340.
Alisa Huckaby	SST	Condition V.4.C.1.b: Although the fact sheet explains that Ecology’s “omnibus authority” of WAC 173-303-815(2) will be used, Condition V.4.C.1.b should include the regulation (as basis). Note: the draft SST groundwater permit conditions that were not used (due to USDOE’s undue influence) correctly cite the regulation (i.e., “Due to releases from the WMA A-AX that have negatively impacted groundwater quality and pursuant to WAC 173-303-815, the Permittees will comply with the compliance monitoring and corrective action requirements stipulated in this condition.”).	Ecology has reviewed and approved final status Groundwater Monitoring Plans (GWMPs) for each of the SST WMAs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.b.ii: An adequate basis for the list of waste constituents has not been provided in any of the interim status groundwater monitoring plans cited in Condition V.4.C.1.a.i. In addition, the Part A permit identifies waste codes which are not included in Condition V.4.C.1.b.ii. (e.g., benzene, carbon tetrachloride, chloroform, 1,2-dichloroethane, 1,1-dichloroethylene, etc.). The permit should identify which constituents are associated with the respective waste codes listed on the Part A permit. In addition, for codes such as D001, D002, and D003, the permit should specify applicable waste constituents that should be monitored. Note: the draft SST groundwater permit conditions that were not used (due to USDOE's undue influence) included a much more extensive list of constituents (i.e., "WMA A-AX point of compliance wells listed in Condition V.1.A.1.f. will be monitored to determine whether dangerous waste constituents listed in Tables 4-1, 4-2, 4-3, 4-4, and 4-5 of Single-Shell Tank Component Closure Data Quality Objectives (RPP-23403, Revision 3), bromide, chloride, phosphate, sulfate, sodium, calcium, magnesium, and potassium are present (i.e., detected)."). Clearly, the basis for the list is a published DQO. The use of a published DQO is appropriate as Ecology determined the permit application was complete. It is requested that an adequate basis for the list of waste constituents be provided for this condition.	Ecology has reviewed and approved final status Groundwater Monitoring Plans (GWMPs) for each of the SST WMAs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340. Dangerous Waste Constituents are addressed for each WMA in their respective GWMP as appropriate for the constituents determined to be problematic during interim status groundwater quality assessments, Appendix 5 of Ecology Publication 97-407, as well as those found in RPP-23403.
Alisa Huckaby	SST	Condition V.4.C.1.b.ii.b: The waste constituent chromium should not be used as a "characteristic tracer". Also, as chromium is included in the ICP metals, Conditions V.4.C.1.b.ii.a and V.4.C.1.b.ii.b contradict.	These conditions have since been removed.
Alisa Huckaby	SST	Condition V.4.C.1.c.i: The condition indicates the permittees will establish groundwater protection standards. WAC 173-303-645(3) requires the groundwater protection standards to be specified in the facility permit. The WAC 173-303-645(3) groundwater protection standards are not specified in the permit.	This comment was not necessary and did not result in a permit change.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.i: The permit does not specify all waste constituents as required by WAC 173-303-645(4) which states: "The department will specify in the facility permit the dangerous constituents to which the groundwater protection standard of subsection (3) of this section, applies. Dangerous constituents are constituents….incorporated at WAC 173-303-110(3)(c) and (7), an any other constituents not listed there which have caused a waste to be regulated under this chapter, that may be or have been detected in groundwater in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit unless the department has excluded them under (b) of this subsection." As previously indicated, the list of constituents in Condition V.4.C.1.b.ii is significantly deficient and not supported by an adequate basis.	Ecology has reviewed and approved final status Groundwater Monitoring Plans (GWMPs) for each of the SST WMAs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340. Dangerous Waste Constituents are addressed for each WMA in their respective GWMP as appropriate for the constituents determined to be problematic during interim status groundwater quality assessments, Appendix 5 of Ecology Publication 97-407, as well as those found in RPP-23403.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.i: The permit condition requires the permittee to submit a DQO for groundwater monitoring just before any groundwater monitoring plan is submitted (per Condition V.4.C.1.d.ii). The condition requires the DQO process to establish contaminants of concern (which is not a RCRA term) and corresponding concentration limits. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify all information. Please find the draft SST groundwater permit conditions (that were not used after USDOE threatened to challenge the permit) attached. Of those conditions, please note V.1.a.1.c. In particular, please not the specificity, prescriptiveness, and enforceability of draft Condition V.1.a.1.c. The conditions were drafted this way so that Ecology would get a groundwater monitoring plan that satisfied WAC 173-303-645(4) and –645(5) requirements without having to spend years arguing with the permittee. Draft condition V.4.C.1.c.i is poorly crafted. Unless the permit specifies what the DQO must contain, it is entirely up to the permittee to "define" what the DQO will include and which requirements will be satisfied. Subsequently, if Ecology does not agree with the permittee on what the DQO should contain, it could take years before the DQO is approved and the permit is modified to incorporate a groundwater monitoring plan that satisfies the groundwater protection standards of WAC 173-303-645(3). Condition V.4.C.i should be re-crafted to clearly specify all requirements of the DQO. Note: if the permittee does not agree with Ecology, the permittee can comply with the permit and provide a technical basis for excluding waste constituents from the groundwater monitoring plan.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. The associated permit condition has been removed. As for DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These are developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish the number of groundwater monitoring wells required. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify the wells that are required to be monitored to satisfy groundwater protection standards and requirements of WAC 173-303-645. As an example of how such a permit condition should be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Condition V.1.A.1.f: "The groundwater monitoring plan will identify a point of compliance that satisfies WAC 173-303-645(6). Because of the uncertainty on the direction of groundwater flow, the groundwater monitoring plan will identify the following wells to be located at the WMA A-AX point of compliance: 299-E24-20, 299-E24-22, 299-E24-33, 299-E25-40, 299-E25-41, 299-E25-93, 299-E25-94, and 299-E25-236." This is an example of a well crafted (i.e., enforceable) permit condition that satisfies WAC 173-303-645 requirements. Condition V.4.C.1.c.ii is little more than an invitation to the permittee to write their own permit.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. As for DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish the locations of groundwater monitoring wells required. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify the wells that are required to be monitored to satisfy groundwater protection standards and requirements of WAC 173-303-645. As an example of how such a permit condition should be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Condition V.1.D that addresses groundwater flow direction determination. Draft Condition V.1.D. requires: "No later than ninety (90) days following completion of work according to the work plan required by Condition V.1.D.1., the Permittees will submit an updated groundwater monitoring plan and a well installation plan that identifies the number and location of groundwater monitoring wells to satisfy the requirements of WAC 173-303-645(8)(a) and (10) to ensure detection of contaminants emanating from the WMA. This groundwater monitoring well and installation plan will identify the methods and analyses used to select the number and location of groundwater monitoring wells and will be approved by Ecology before implementing the plan. In the past, the Monitoring Efficiency Model (MEMO) has been used for such demonstration. Ecology must approve the use of various parameters for the MEMO and/or any other alternative model used for this purpose prior to application of the model." This is an example of a well crafted (i.e., enforceable) permit condition that satisfies WAC 173-303-645 requirements. Condition V.4.C.1.c.ii is little more than an invitation to the permittee to write their own permit.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. As for DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish the sampling methods. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify the sampling methods that are required to satisfy groundwater protection standards and requirements of WAC 173-303-645. As an example of how such a permit condition should be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.A.1.n.i.c through V.1.A.1.n.i.h that address analytical methods selection. This is an example of well crafted (i.e., enforceable) permit conditions that satisfies WAC 173-303-645 requirements. Condition V.4.C.1.c.ii is little more than an invitation to the permittee to write their own permit.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. As for DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish reporting requirements. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify the reporting requirements that are required to satisfy requirements of WAC 173-303-645. As an example of how such a permit condition should be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.A.1.j., V.1.A.1.k., V.1.A.1.l, V.1.A.1.m., V.1.A.1.x., V.1.A.1.ee.i., V.1.A.1.gg., V.1.A.2.b., B.1.B.1.d.ii., V.1.E.3., V.1.F.1, and V.1.F.2. Clearly, there are numerous different reporting requirements that should be specified in the report. It is requested that Ecology use draft Conditions V.1.A.1.j., V.1.A.1.k., V.1.A.1.l, V.1.A.1.m., V.1.A.1.x., V.1.A.1.ee.i., V.1.A.1.gg., V.1.A.2.b., B.1.B.1.d.ii., V.1.E.3., V.1.F.1, and V.1.F.2. to obtain information from the permittee that allows Ecology to ensure the groundwater protection standards of WAC 173-303-645 are being satisfied.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. For DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish monitoring requirements. Because the permittee submitted a permit application that Ecology determined was complete, the permit should specify the reporting requirements that are required to satisfy requirements of WAC 173-303-645. As an example of how such a permit condition should be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.A.1.o, V.1.A.1.p., V.1.A.1.r., V.1.A.1.s., V.1.A.1.t., and V.1.A.1.u. It is requested that Ecology use draft Conditions V.1.A.1.o, V.1.A.1.p., V.1.A.1.r., V.1.A.1.s., V.1.A.1.t., and V.1.A.1.u. to specify monitoring requirements that must be provided in the groundwater monitoring plans to ensure the groundwater protection standards of WAC 173-303-645 are being satisfied. Again, Condition V.4.C.1.c.ii is little more than an invitation to the permittee to write their own permit and should be re-written to prescriptively specify monitoring requirements that will satisfy WAC 173-303-645 requirements.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. For DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.
Alisa Huckaby	SST	Condition V.4.C.1.c.ii: The permit condition requires the DQO to establish “alternative monitoring and sampling requirements within the vadose zone in the absence of groundwater”. Considering the permit will likely be in effect for 10 years, there are no regression analyses indicating an absence of groundwater beneath the SST WMAs for the next decade. The permit wording is both meaningless and incredible. Because this wording is meaningless, it should be deleted.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses. The associated permit condition has also been removed. For DQOs, permit condition V.4.H.7.a addresses the requirements for DQOs and SAPs, with Ecology approval. These will be developed in accordance with EPA/600/R-96/05 and incorporated by reference into their associated Closure Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.d.ii: The condition specifies a schedule for the permittee to submit a groundwater monitoring plan for WMA C. However, the condition leaves it up to the permittee to decide when to submit all other groundwater monitoring plans for all other WMAs. This condition's use of the compliance schedule in this fashion is without basis and inappropriate. Because the permittee submitted a permit application that Ecology determined was complete, the permit should not use long-term compliance schedules such as Condition V.4.C.1.d.ii. Please find the draft SST groundwater permit conditions (that were not used after USDOE threatened to challenge the permit) attached. Of those conditions, please note the specificity, detail, prescriptiveness, and enforceability. The conditions were drafted this way so that Ecology would get a groundwater monitoring plan that satisfied WAC 173-303-645 requirements without having to spend years arguing with the permittee. The conditions were drafted this way so that all groundwater monitoring plans could be submitted in a timely fashion. Furthermore, because Ecology staff did all the work for the permittee (i.e., clearly specified all elements [in detail] of all required groundwater monitoring plans), the groundwater monitoring plans could easily be generated in a timely fashion and could easily be approved by Ecology. Due to the poorly crafted Condition V.4.C.1.d.ii., the groundwater monitoring plans would very likely take years to be approved by Ecology, incorporated into the permit, and implemented. It is requested that Ecology re-consider using the attached draft SST WMA permit conditions.	The condition this comment refers to has been deleted. All SST WMAs have their own final status GWMPs, as Addenda D, and each of these GWMPs include parameters used to address the monitoring well network, groundwater flow analyses, and myriad of other requirements.
Alisa Huckaby	SST	Condition V.4.C.1.d.iv: Condition V.4.C.1.c.ii: The permit condition requires the groundwater monitoring plans to include supporting background information. Because the permittee submitted a permit application that Ecology determined was complete, the "supporting information" should already be available. As such, the permit condition is unnecessary.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA and the referenced conditions no longer exist.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.1.d.v: Several of the elements (e.g., point(s) of compliance, monitoring frequency, reporting, responses, etc.) required by this condition should already be specified in the permit. An important element (i.e., determination of adequacy of groundwater monitoring network) that the condition requires the permittee to do should be done by Ecology as the regulator – not USDOE as the permittee. Condition V.4.C.1.d.v is little more than an invitation to the permittee to self-regulate at their convenience. This condition is incredible and has no place in a RCRA permit. The condition should be re-written to prescriptively and enforceably specify requirements that will either satisfy WAC 173-303-645 or require the permittees to satisfy WAC 173-303-645 requirements.	The condition referenced in the comment has been removed. Further, the parameters of the adequacy of the monitoring well network, among other items of concern, are developed with Ecology's approval.
Alisa Huckaby	SST	Condition V.4.C.1.d.vi: Sub-condition “c” cites WAC 173-303-645(9) which are detection monitoring program requirements. Because releases from all SST WMAs have negatively impacted groundwater, detection monitoring program requirements are not applicable. Therefore, WAC 173-303-645(9) requirements should not be cited.	This condition has since been removed. However, Condition V.4.D.2.a requires permittees to adhere to WAC 173-303-645(8)-(11). Ecology is unsure what the goal of this comment was, but detection monitoring requirements are required for the SSTs.
Alisa Huckaby	SST	Additional Conditions: Permit conditions for “inside the fence resource protection well” construction, maintenance, inspection, remediation, and decommissioning should be included. For environmental protection, it is important that these wells be maintained – if they are not, they may serve as a conduit for contaminant transport. As such, the requirement is justified. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.C.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, decommissioning of old/compromised wells, and the extent to which the permit applies in respect to the WMA boundary.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Additional Conditions: Permit conditions that specify how groundwater flow direction is to be determined in the 200 East Area should be included. For environmental protection and to satisfy WAC 173-303-645 requirements, flow direction determination requirements should be included. Because the potentiometric surface is so flat, prescriptive requirements associated with determining groundwater flow direction are justified. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.D.1.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP include groundwater flow analyses.
Alisa Huckaby	SST	Additional Conditions: Permit conditions that require the permittee to ensure the groundwater monitoring network satisfies the requirements of WAC 173-303-645(8) and (10) to ensure detection of contaminants emanating from the WMA should be included. Because SST closure activities will be occurring for decades, additional conditions requiring the permittee to ensure contaminants are detected (i.e., they do not bypass the point of compliance due to too-large well spacing) are justified. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.D.3.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. Each respective GWMP includes groundwater the parameters used to address the monitoring well network, including groundwater flow analyses.
Alisa Huckaby	SST	Additional Conditions: Permit conditions that require drywell logging should be included. Because SST closure activities will be occurring for decades and there are deficiencies associated with well networks (i.e., groundwater flow direction is unknown in the 200 East Area, groundwater flow direction is reversing beneath TX-TY WMA in the 200 West Area, and groundwater flow direction may be affecting the adequacy of monitoring networks in the 200 West Area due to the 200-ZP-1 Operable Unit pump-and-treat remediation), additional conditions requiring drywell logging are justified. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.E.	Permit conditions V.4.C.6 and V.4.J.9 highlight Ecology's requirements for dry well logging.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Additional Conditions: Permit conditions that require unsaturated zone monitoring alternatives evaluation and selection to augment groundwater monitoring in the event of substantial change in groundwater flow directions and/or to support schedule of well construction at point of compliance should be included. Because SST closure activities will be occurring for decades and there are deficiencies associated with well networks (i.e., groundwater flow direction is unknown in the 200 East Area, groundwater flow direction is reversing beneath TX-TY WMA in the 200 West Area, and groundwater flow direction may be affecting the adequacy of monitoring networks in the 200 West Area due to the 200-ZP-1 Operable Unit pump-and-treat remediation), additional conditions requiring evaluation of vadose zone monitoring to augment groundwater monitoring are justified. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.F.	This comment has been addressed due to the Rev.9 permit having final status GWMPs as Addenda D for each WMA. The GWMPs for each SST unit use engineering evaluation reports for their respective WMAs, which include background information for multiple parameters. The vadose zone is one of those parameters.
Alisa Huckaby	SST	Additional Conditions: Because it is known that groundwater flow direction beneath the TX-TY WMA is reversing (due to the 200-ZP-1 Operable Unit pump-and-treat remediation) additional permit conditions should be included to require the installation/construction of additional groundwater monitoring wells on the west side of the TX-TY WMA (formerly upgradient to the WMA). In other words, due to the CERCLA remediation occurring in the 200 West Area, the TX-TY WMA groundwater monitoring network is no longer compliant (i.e., no longer satisfies WAC 173-303-645(8) and (10) requirements). Because the CERCLA remediation is occurring, the permit conditions should include a schedule for monitoring well installation/construction that achieves compliance in the near-term (i.e., additional wells should be installed/constructed within 1 year of the effective date of the permit.	The SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.2: The use of “corrective action monitoring” is confusing. The previous permit conditions attempt to address compliance monitoring requirements of WAC 173-303-645(10). However, the corrective action requirements of WAC 173-303-645(11) are not addressed. Furthermore, Conditions V.4.C.2.a through V.4.C.2.f identify the HFFACO and RCRA corrective action requirements of WAC 173-303-64620 and MTCA requirements of WAC 173-340. For clarity and enforceability, the condition should clearly identify which standards are being applied. It should be noted that WAC 173-340-410 does not have a “corrective action monitoring” program. If “performance monitoring” or “confirmation monitoring” is meant, it is recommended that the intended term be used.	Condition V.4.D.4.b (formerly V.4.C.2) lists the WAC citations that are being applied in corrective action monitoring. This language is consistent with language used in the WAC.
Alisa Huckaby	SST	Additional Conditions: The draft conditions do not specify how WAC 173-303-645(11) requirements will be satisfied. As the RCRA compliance monitoring program of WAC 173-303-645(10) is an interim between the detection monitoring program of WAC 173-303-645(9) and the corrective action program of WAC 173-303-645(11), the permit should specify how the RCRA corrective action requirements of WAC 173-303-645(11) will be met.	This has been addressed with permit condition V.4.D.2.a of the new permit conditions, which reads: "Permittees shall implement groundwater monitoring for each SST WMA under Addenda D, Groundwater Monitoring Plan, in effect pursuant to Permit Condition V.4.D.3.a following the requirements of WAC 173-303-645(8) – (11), incorporated by reference, until each WMA is certified as closed."
Alisa Huckaby	SST	Condition V.4.C.2.a: The conditions do not specify the regulatory authority (e.g., WAC 173-303-815) by which RCRA corrective action requirements are being imposed.	The permit conditions have changed and condition V.4.C.2.a is now V.4.D.4.a. Additionally, both the original and the current condition contain the necessary WAC regulation requirements via incorporating HFFACO Action Plan Section 5.5 by reference.
Alisa Huckaby	SST	Condition V.4.C.2.a: The condition states: “…to meet corrective action performance monitoring requirements”. However, the condition provides no standards or requirements. If the requirements of WAC 173-340-410 are to be met, the permit condition should clearly state it. As written, the permit condition is unenforceable.	The permit conditions have changed and condition V.4.C.2.a is now V.4.D.4.a. Additionally, both the original and the current condition contain the necessary WAC regulation requirements via incorporating HFFACO Action Plan Section 5.5 by reference.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.2.c: The condition requires the permittees to evaluate the effectiveness of the CERCLA remedial action for groundwater contamination from the WMA T and WMA TX-TY. Because the groundwater flow direction beneath the TX-TY WMA has reversed, there are insufficient downgradient wells at the WMA point of compliance. Therefore, the effectiveness of the CERCLA remedial action for groundwater contamination from the WMA TX-TY cannot be evaluated. The permit condition is poorly crafted and is meaningless.	The SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans.
Alisa Huckaby	SST	Condition V.4.C.2.c: The condition appears to defer to the CERCLA remediation to satisfy WAC 173-303-646 corrective action requirements. Table A-1 (contaminant monitoring constituents) of DOE/RL-2009-115, Rev. 0 does not list all TX-TY WMA waste constituents that should be monitored at the point of compliance in a corrective action program. Therefore, the CERCLA performance monitoring plan will neither ensure the groundwater protection standards of WAC 173-303-645 are being satisfied nor satisfy MTCA performance monitoring requirements of WAC 173-340. It is disingenuous for Ecology to equate the substantive requirements of RCRA and CERCLA and/or to imply the CERCLA actions satisfy RCRA protection standards when they clearly do not.	The SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans.
Alisa Huckaby	SST	Condition V.4.C.2.c: The condition requires the permittees to evaluate the effectiveness of groundwater remediation “in the annual Hanford Site Groundwater Monitoring and Performance Report”. This annual report is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the report. As such, the permit condition is meaningless. The permit condition should clearly specify how effectiveness will be evaluated. Specifically, the permit should specify which downgradient groundwater monitoring wells will be used, what waste constituents will be used, what waste constituent concentrations will be used, what data analysis and evaluation procedures will be used, etc.	The condition associated with this comment has been moved and edited. The new condition, V.4.D.4.d, now reads : "• Permittees shall evaluate the effectiveness of the 200-ZP-1 OU remedial action for groundwater contamination originating from the WMA T and WMA TX-TY after 200-ZP-1 OU remedial action commences. Permittees shall summarize the evaluation in the annual Hanford Site-Wide Groundwater Monitoring Report."

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Additional Conditions: A condition that achieves a periodic determination whether additional dangerous waste constituents could be present (to satisfy WAC 173-303-645(10)(g)) at the RCRA point of compliance should be included in the permit. As an example of how such permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Condition V.1.A.1.x.	Waste constituents for each WMA are determined through the DQO and Engineering Evaluation Report. The point of compliance is determined in the associated Groundwater Monitoring Plan. Groundwater sampling events take place each quarter which evaluates changes in waste constituents via statistical evaluation. These samplings and the responses to deviations in the waste constituent analysis are embedded in the new final status GWMPs for each WMA.
Alisa Huckaby	SST	Condition V.4.C.2.d: The condition requires the permittees to evaluate the effectiveness of groundwater remediation “in the annual Hanford Site Groundwater Monitoring and Performance Report”. This annual report is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the report. As such, the permit condition is meaningless. The permit condition should clearly specify how effectiveness will be evaluated. Specifically, the permit should specify which downgradient groundwater monitoring wells will be used, what waste constituents will be used, what waste constituent concentrations will be used, what data analysis and evaluation procedures will be used, etc.	The condition associated with this comment has been moved and edited. The new condition, V.4.D.4.e, now reads : "• Permittees shall evaluate the effectiveness of the 200-UP-1 OU remedial action for groundwater contamination originating from the WMA S-SX and WMA U after 200-UP-1 OU remedial action commences. Permittees shall summarize the evaluation in the annual Hanford Site-Wide Groundwater Monitoring Report."
Alisa Huckaby	SST	Condition V.4.C.2.d: From the way the condition is written, it cannot be determined if the CERCLA remedial action has commenced. If it hasn’t, it is inappropriate for Ecology to use a compliance schedule in this way. This condition’s use of long-term compliance schedules in this fashion is without basis and inappropriate. Because the permittee submitted a permit application that Ecology determined was complete, the permit should not use long-term compliance schedules such as Condition V.4.C.2.d. In other words, until CERCLA remediation that satisfies WAC 173-303-645 and -646 requirements commences, Ecology should specify corrective action requirements in the permit.	Due to the complexity of the site, the SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans. It should be pointed out that closure of the SSTs will likely not be fully accomplished for many decades to come. It would be naive to expect concrete CERCLA remedial actions to be completed whilst the SSTs have not been closed.

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Condition V.4.C.2.e: The condition requires the permittees to evaluate the effectiveness of groundwater remediation “in the annual Hanford Site Groundwater Monitoring and Performance Report”. This annual report is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the report. As such, the permit condition is meaningless. The permit condition should clearly specify how effectiveness will be evaluated. Specifically, the permit should specify which downgradient groundwater monitoring wells will be used, what waste constituents will be used, what waste constituent concentrations will be used, what data analysis and evaluation procedures will be used, etc.	The condition associated with this comment has been moved and edited. The new condition, V.4.D.4.f, now reads : "• Permittees shall evaluate the effectiveness of the 200-BP-5 OU remedial action for groundwater contamination originating from the WMA B-BX-BY and WMA-C after 200-BP-5 OU remedial action commences. Permittees shall summarize the evaluation in the annual Hanford Site-Wide Groundwater Monitoring Report."
Alisa Huckaby	SST	Condition V.4.C.2.e: From the way the condition is written, it cannot be determined if the CERCLA remedial action has commenced. If it hasn’t, it is inappropriate for Ecology to use a compliance schedule in this way. This condition’s use of long-term compliance schedules in this fashion is without basis and inappropriate. Because the permittee submitted a permit application that Ecology determined was complete, the permit should not use long-term compliance schedules such as Condition V.4.C.2.e. In other words, until CERCLA remediation that satisfies WAC 173-303-645 and -646 requirements commences, Ecology should specify corrective action requirements in the permit.	Due to the complexity of the site, the SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans. It should be pointed out that closure of the SSTs will likely not be fully accomplished for many decades to come. It would be naive to expect concrete CERCLA remedial actions to be completed whilst the SSTs have not been closed.
Alisa Huckaby	SST	Condition V.4.C.2.e: The condition requires the permittees to evaluate the effectiveness of groundwater remediation “in the annual Hanford Site Groundwater Monitoring and Performance Report”. This annual report is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the report. As such, the permit condition is meaningless. The permit condition should clearly specify how effectiveness will be evaluated. Specifically, the permit should specify which downgradient groundwater monitoring wells will be used, what waste constituents will be used, what waste constituent concentrations will be used, what data analysis and evaluation procedures will be used, etc.	This comment seems to be a duplicate of comment ID 1998. The condition associated with this comment has been moved and edited. The new condition, V.4.D.4.f, now reads : "• Permittees shall evaluate the effectiveness of the 200-BP-5 OU remedial action for groundwater contamination originating from the WMA B-BX-BY and WMA-C after 200-BP-5 OU remedial action commences. Permittees shall summarize the evaluation in the annual Hanford Site-Wide Groundwater Monitoring Report."

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Additional V.4.C.2.e Conditions: During a September Ecology and Stakeholder groundwater meeting, USDOE presented information on the perched groundwater pump-and-treat operations associated with releases from WMA B-BX-BY. It was explained that as of October 1, 2012, there would no longer be funding to continue the groundwater remediation. It is requested that permit actions be included which require the permittee to perform groundwater pump-and-treat operations for dangerous waste constituents (e.g., nitrate). Clearly, the permittee should be required to perform groundwater pump-and-treat remediation associated with releases from the B-BX-BY to satisfy WAC 173-303-645(11) requirements.	The groundwater remediation work in WMA B-BX-BY for perched water is ongoing as of April of 2026. Ecology will continue to enforce cleanup standards.
Alisa Huckaby	SST	Condition V.4.C.2.f: From the way the condition is written, it cannot be determined if the CERCLA remedial action has commenced. If it hasn't, it is inappropriate for Ecology to use a compliance schedule in this way. This condition's use of long-term compliance schedules in this fashion is without basis and inappropriate. Because the permittee submitted a permit application that Ecology determined was complete, the permit should not use long-term compliance schedules such as Condition V.4.C.2.f. In other words, until CERCLA remediation that satisfies WAC 173-303-645 and -646 requirements commences, Ecology should specify corrective action requirements in the permit.	Due to the complexity of the site, the SSTs will use Coordinated Closure in respect to CERCLA and RCRA intermingling, which is found in the Tier 1 Closure Plan, Tier 2 Closure Action Plans, and Tier 3 Closure Activity Plans. It should be pointed out that closure of the SSTs will likely not be fully accomplished for many decades to come. It would be naive to expect concrete CERCLA remedial actions to be completed whilst the SSTs have not been closed.
Alisa Huckaby	SST	Condition V.4.C.2.f: The condition requires the permittees to evaluate the effectiveness of groundwater remediation "in the annual Hanford Site Groundwater Monitoring and Performance Report". This annual report is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the report. As such, the permit condition is meaningless. The permit condition should clearly specify how effectiveness will be evaluated. Specifically, the permit should specify which downgradient groundwater monitoring wells will be used, what waste constituents will be used, what waste constituent concentrations will be used, what data analysis and evaluation procedures will be used, etc.	The condition associated with this comment has been moved and edited. The new condition, V.4.D.4.g, now reads : "•Permittees shall evaluate the effectiveness of the 200-PO-1 OU remedial action for groundwater contamination originating from the WMA A-AX, and WMA C after 200-PO-1 OU remedial action commences. Permittees shall summarize the evaluation in the annual Hanford Site-Wide Groundwater Monitoring Report."

Commenter	Unit Group	Comment	Comment Response
Alisa Huckaby	SST	Conditions V.4.C.2.c, V.4.C.2.d, V.4.C.2.e, and V.4.C.2.f: The permit condition that should be cited is “V.4.C.3” to read: “….Monitoring and Performance Report submitted pursuant to Permit Condition V.4.C.3.”	The permit conditions have changed and the language in the conditions referencing V.4.C.2 has been removed.
Alisa Huckaby	SST	Condition V.4.C.3.a: The annual report submitted at Hanford is a secondary document. Because the annual report is a secondary document, Ecology has no ability to require the permittee to correct, modify, or retract erroneous conclusions made in the Hanford annual groundwater report. As such, the permit condition is ineffective as a means for Ecology to determine if WAC 173-303-645 groundwater protection standards are being satisfied.	The original Condition V.4.C.3.a has been removed.
Alisa Huckaby	SST	Condition V.4.C.4: The condition does not include documentation or reporting requirements. The condition inherently relies on the permittee to self-report or for Ecology to perform resource-intensive compliance inspections. As an example of how better permit conditions could be written, please find the draft SST groundwater permit conditions for WMA A-AX (that were not used after USDOE threatened to challenge the permit) attached. Specifically, note draft Conditions V.1.B.	This is now Condition V.4.D.5 and has been rewritten during reviews.
Alisa Huckaby	1325-N	Addendum K, Section K.4.2: Addendum K states: After closure of 1301-N and 1325-N, the sampling and analysis task leader or delegate (samplers) will be responsible for...." The addendum appears to have been written for a closing unit. Addendum K should be entirely re-written to agree with Condition II.J and WAC 173-303-610(2) as a unit for which closure is yet to be completed.	1301-N and 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Anisa Khaleel	General	I'm concerned about the 40 miles of unlined ditches that contain radioactive and chemical waste at Hanford. Currently, there are no records that exist that tell us what was disposed where. The Department of Energy proposes to just leave all these wastes in the ground covered with dirt. Some of the waste is in barrels, some of it is in wooden and cardboard boxes which has long since deteriorated. We know that the waste is leaking hazardous chemicals and chemical vapors. So, what we need is a hazardous waste permit that requires that the waste in the ditches be characterized and cleaned up. This means we need monitoring wells that cover the full extent of the waste that has been dumped, not just select areas. The hazardous waste permit needs to require monitoring of the soils and groundwater for the whole 40 miles.	It's not true that there are no records that exist that tell us what was disposed where. It is true that the disposal records are incomplete. Because the records are incomplete, Ecology has required require USDOE to submit a plan to investigate what is in the 40 miles of trenches. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Anna Howell	General	To Whom It May Concern; I will not take much of your time, I simply want to take a minute to urge you to pursue a complete cleanup. Thank you, Anna Howell	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Anonymous	General	I just wondered if you could tell us or see that it's published on your website how much our testimony weighs your decision, and tell us how the decision is planning on being made about this permit?	We review and respond to every comment we receive. All comments within the scope of the comment period are weighed to see if they affect a change in the permit and considered them while making decisions and drafting the revised permit renewal. Our Rev 9A Permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Anthony Porseo	General	All of you here have heard a representative of Hanford, maybe the DOE, publicly admit that we lost a billion gallons of highly radioactive waste at the Hanford site. Well, that kind of confirms something that I read about 25 years ago, or in the ‘80s, about how when the first telescopic cameras that were put into orbit and could take shots of the earth, they discovered that there was a radioactive plum that went from the Hanford site out the Columbia River and all the way down to the San Francisco Bay. Now, this was on the news, but it made a big splash with people who were against nuclear energy, but otherwise, it’s kind of gone off. So, my question would be, is this, I mean, has the government forgot that this a democracy, that such an important issue that involves so many citizens should not be put to a public vote? No. I think they believe that this is too important for the people to decide and that basically, the government is dictating to us while we beg for mercy what our future is going to be, and judging from their past record as far as Hanford is concerned, we really don’t have a reason to be very optimistic about the future. Perfect.	Public periods are your opportunities to comment on Hanford cleanup. We review and respond to every comment we receive. Ecology's Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. The public comment period was focused on the renewal of the dangerous waste permit, the Hanford Site-wide Permit, Rev. 9. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Art Smith	General	Please clean up the old nuclear waste at Hanford before new waste is dumped there....	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Barb Lyons	General	Hello: I live in Seattle and I'm trying to be as environmentally aware as possible. We are going to need more electricity in the future, as more people move here to avoid the extremes of climate that we are experiencing. We do not need to put our people at risk by using nuclear reactors to make more electricity. It is time to pull the plug on this dangerous source of energy and stress conservation and other, safer resources. Nuclear energy makes people sick and die from cancer. I want you to deal directly and efficiently with nuclear waste to neutralize its ability to cause environmental damage and illness. That is the first step. No more nuclear reactors and no more waste in Washington!	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Barb Lyons	General	Please don't allow poisonous, radioactive wastes to expose people to cancer causing materials by trucking wastes through Portland and Spokane. Cancer is not funny for any person or family who has to go through it. Besides, it is extremely expensive to take care of even one cancer patient. Cancer victims will eventually drain our economy with their medical needs. Protect the Columbia river, the agricultural lands that use the water and the fish and people who live on and near the river. This is our responsibility as US citizens. It is time to stop moving this problem around by trucking wastes to Washington and dumping them in holes. We will end up paying much more than we save by not disposing of wastes safely.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Barbara Brooking	General	Dear Reader: I am a daughter of the Columbia River. I grew up in the 40's, 50's, and 60's swimming, water skiing, reveling in the beauty that is the River and the Columbia Gorge. Even if this were not the case, I would be troubled by the seemingly uncaring attitude of the USDOE toward the clean-up of all ALL! toxic waste at Hanford. Why should organizations like Heart of America Northwest with the citizens of Washington, Oregon and other states have to fight so long, so hard, and at such expense to convince our own government of the importance of cleaning up this lurking danger to the safety of life along the Columbia River. It is simply unfathomable. Please take a careful look at your motives, you who want to now add more waste before cleaning up the old. I'm guessing your motives have to do with politics and the "bottom line," not with the long term welfare of the land and people. Please look deeper. Please gather your strength and the will to do the right thing. Sincerely,	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Barbara Buckingham-Hayes	General	I urge you to deny the permit for Hanford to become a national repository for such chemical and radioactive wastes. The level of rain and moisture we have here only increases the likelihood that corrosion will take place over time and leakage will occur. We are also in a seismically active region and so these environmental aspects are a strong argument against any long term storage process much less with such toxic and potentially harmful substances. This is an issue that can not be denied and so I urge you to deny this permit to the USDOE. There certainly needs to be more environmentally conducive sites and it is necessary to do further environmental impact studies before such a permit would be granted.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Barbara Buckingham-Hayes	General	I have become more informed about the current possibility of future storage of additional toxic chemicals and radioactive waste at the Hanford site in Washington near the Columbia River. I know that contamination already threatens the safety of the surrounding areas and leaking storage units have been detected which further threatens the safety of the Columbia River Basin and the flora and fauna that it provides habitat for.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Barbra Zapeda	General	I graduated from Richland High School in ’53. My mother worked in Hanford in the lowest form of cleanup at the job, and there was only one person that actually carried out the real safety processes in the ‘50s that she would tell, and it was Russell Knight. He was never prompted. In fact, he was kept back because he didn’t do the speedup. He tried to follow the rules. But it is the problem of secrecy. In fact, I just heard a Japanese girl talk about Fukushima on C-SPAN 3 just yesterday. And she was saying there is no way the Japanese people will ever trust their government. They have decided to cut off all nuclear plants and even though [Jasco 42:21] is the one member of the NRC that said we should find out what happened in Fukushima, the people in Japan that are concerned say they can’t because government lies, the utility companies lie, and the only way they can trust the nuclear industry is to shut it down because it has proved that after 50 years -- actually, it’s more than 50 years, it’s more like 60 or 70 -- they don’t give a damn. We have bankrupted this country by being the military armaments industry and we are killing ourselves. It’s the worst form of suicide because it is a slow death for everybody. There is a shortage of water. We need the agricultural lands here in the north because of global warming, but they’re not going to be available because we’ve poisoned it. And everybody here knows well that people are lying and our government is lying. And until that stops, until we can believe anybody -- this is almost a useless process because the only way to solve a problem is to get at the truth.	Our Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Beth Call	General	Already 40 miles of unlined trenches are filled 50 feet deep with unidentified hazardous and radioactive waste. Any new landfills for offsite waste should be banned.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. No decision has been made to cover-up billions of gallons of discharges from high level nuclear waste tanks. The RCRA Permit Single-Shell Tank Closure Unit Group, Section V.4.D, requires USDOE to conduct corrective actions for the discharges. A draft Ecology decision on those corrective actions will be subject to public comment before Ecology makes its final decision.
Beth Call	SST	Some of the 68,000 single shelled tanks. many decades old, containing unidentified nuclear wastes are leaking. The waste from these tanks should be immediately transferred to double shelled tanks, even though a few of the double shelled tanks are also beginning to leak and may not be secure til 2040 when the single shelled tanks are scheduled to be emptied.	There are 149 Single Shell Tanks (SSTs) with ancillary equipment and they are all decades old. To reduce the risk of leaks to the environment the bulk liquid portion of most of these tanks was removed and pumped into the Double Shell Tanks (DSTs). This was referred to as interim stabilization. According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. DST 241-AY-102 is the only known leaking DST. The Rev 9A permit identifies DST 241-AY-102 as a closure unit because it has been identified as leaking into the annulus. There is no indication that the secondary tank is leaking. This will be the first DST that will be closed and more will be planned in the future.

Commenter	Unit Group	Comment	Comment Response
Beth Call	General	Transporting 30,000 more truckloads of radioactive-hazardous nuclear waste to be stored at Hanford would pose alarming risks to those who live in the area, to those who live in the Columbia River Basin, and to all those who live in states through which the nuclear waste would be transported. The trucks that would transport the waste can not have thick enough lead barriers to prevent radiation leaks because the lead would be too heavy for the trucks to be able to move. Even if there were no accidents, the radioactivity that would escape along the way would cause 816 adults to die of cancer, by the DOE's own estimates. Children are especially vulnerable. If there were an accident resulting in fire, or a terrorist attack, on the route that goes through the Portland area, 1000 would die immediately and 300 square miles would have to be evacuated. The Columbia River would become radioactive. This radioactivity would contaminate the area for thousands of years as is happening at Chernobyl and Fukushima. How can anyone think this is an acceptable solution to storing radioactive and nuclear waste? Has the DOE decided it is acceptable to risk the lives of those in the Pacific Northwest for the convenience of nuclear waste producers on the East Coast and throughout the US? No more nuclear waste should be produced until/unless a safe method and site for disposal are developed. The USDOE must NOT ship more nuclear and hazardous waste to Hanford. It must clean up the perilous waste already stored there.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Beth Giansiracusa	General	Like I said earlier, I was in front of the NFSB -- the acronym for the one that sees everything, which is the Nuclear Defense Safety Board. The issues that came up were the Safety Culture and the 99 problems that were at Hanford. The reason the 99 problems came out was because of whistleblowers that had to go through Occupy or other places. Crazy stuff. And when this starts happening and we trust the government, ha, or the people that -- you take your jobs because I would assume you want to help people, you want to do your job. But when you have a fast track design, when you have things that you automatically know are problems and you move beyond those problems into another reframing because all I see is Hanford is everything gets reframed. Everything is reframed. Every other time, it's reframed. And I want to see the truth. I want to see -- you're owning up to certain problems, but there's a lot of stuff that when you permit, what you're doing is you're permitting harm, that's what a permit is. It's to permit harm. Unless your permit starts working with the Safety Culture and addresses the fast track design out there, then you're really not doing anything. Everything can be re-undone. Like you said, it's an open book. It's something that you can make as you go because that's what fast track design does. "We're going to change it here. Now we're going to change it here. Now we're going to change it here."	The Nuclear Waste Program's mission is to protection of human health and the environment. Our Rev. 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows the dangerous waste regulations under WAC 173-303.

Commenter	Unit Group	Comment	Comment Response
Beth Rakoncay	NRDWL	Hi, my name is Beth Rakoncay. I'm with No Nukes Northwest, Occupy Portland, and I too am a citizen of the planet. Deeply, deeply concerned. My concern is largely with the CGS that's presently still on the Hanford site, and I realize your permit requests are for what you deem just as Hanford's issues. But the CGS is present on that site and it needs oversight as well. Hanford needs oversight and is far lacking in that. One of my concerns largely is Energy Northwest. Energy Northwest has recently entered into agreement to accept depleted uranium from the U.S. Department of Energy. The DOE has more than 770,000 tons of depleted uranium, largely most of which is considered waste, stored at Paducah in Portsmouth, Ohio. However, the DOE is restricted to offering the depleted uranium from those tails, as they're called, the leftover depleted uranium, they're restricted to offering the depleted uranium from tails for enrichment only to federal entities, which limits the deal to the Bonneville Power Administration, which Energy Northwest is working with. Energy Northwest has entered an agreement to accept the depleted uranium from the U.S. DOE and is contracted with the United States Enrichment Corporation to have the depleted uranium enriched either in Paducah, or after processing, it will be receiving the enriched uranium that can be used to fuel the Columbia generating station, with the last of the incoming fuel, then, being placed in a reactor in 2029. Energy Northwest will sell a portion of the enriched uranium to the Tennessee Valley Authority. My concern is we may be working on a cleanup, but if there's an issue where money can now be being made from the depleted uranium and just change its name into something else, where's the permit to regulate that? Where's the permit to regulate the greed that we all know exists, either from the Bechtel, from the government in and of itself, or from this new opportunity to make money? This is my concern and I want this to be addressed and I want this to be a thought. Bring this up. Think about this one. Think about Plan B. What's the next thing somebody's going to come up with to make more money from this? Thank you.	Thank you for your comment. These issues are out of scope for the Rev 9A Sitewide Permit Renewal. Energy Northwest (Columbia Generating Station) stores their used nuclear fuel on site after 6 years in the reactor core. The containers are stored in a deep pool for 5 years and then moved to a safe above-ground dry storage. More information can be found on the Energy Northwest website.

Commenter	Unit Group	Comment	Comment Response
Betsy Toll	General	We respectfully and strongly urge Washington Department of Ecology to establish in clear, unequivocal language a non-negotiable bar on offsite waste being added to any landfill anywhere at Hanford. We further urge that such language must specifically include and pertain to any proposals for future landfills, vaults or boreholes that the US Dept. of Energy or any other entity may put forward.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Betsy Toll	General	Current waste issues at Hanford, including leaks and leaching, have not been responsibly and effectively handled, and no additional waste should be introduced until existing problems are dealt with.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Betsy Toll	General	Further, we urge that the current State Environmental Policy Act (SEPA) determination of non-significance be withdrawn. Hanford Site mitigation plans for existing waste are unclear and incomplete. No credible determination of either significance or non-significance can be made under these conditions, and the determination is thus inherently flawed.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Betsy Toll	General	Until mitigation plans for existing radioactive waste are clarified and presented to the public, and then thoroughly vetted by the public, it is impossible to determine the rigorousness or adequacy of the plans. The Hanford site's currently faulty conditions present long-term consequences for the site itself, for employees and neighboring communities, and for the surrounding environment including the Columbia River. Until such time as US DOE has made responsible, rigorous, and transparent plans to deal with existing waste, particularly regarding the leaks of tank wastes in the Central Plateau, no further permit should be approved and the determination of non-significance should be immediately withdrawn.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

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Bill Johns	General	Like I said before, I like that it's a living document. That idea's a good one with such a complex project. I believe in the cap and cover is effective, it's been used all over the state, and by the way, in landfills. What you do is you put down like a sand, then a membrane, and then soil on top to protect that membrane. And in the landfills I've been with, we do not know what's in those landfills. It's not just garbage. It's not just household garbage. They were here from the turn of the century and we haven't found contaminates in the wells around them. I believe we should take in waste at Hanford, but collect money for it and put that money back against the cleanup since the feds, that money's starting to dry up. I think we should do the most critical first and not just things for show, which it seems sometimes is done there. I'd like it toward the things that are considered critical. Also, I think that sometimes down there, because it's so complex, it gets caught up in its own process and I've been receiving emails on the sanitary [?sewer lagoon 18:26], which there's hundreds of them all over the state of Washington. And if it took the permitting it's taking down there, I don't know if we'd ever built any at the small cities around this state.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.
Boni Biery	SST	It is imperative that new conditions be established to get rid of the currently leaking Single Shell Tanks AND address the fact that even the Double Shell Tanks will be leaking before we know it.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. Ecology has worked with the Permittees to create an addition to the Rev 9A permit that includes closing Double Shell Tank (DST) 241-AY-102 which has been identified as leaking into the annulus. There is no indication that the secondary tank is leaking. This will be the first DST that will be closed and more will be planned in the future.

Commenter	Unit Group	Comment	Comment Response
Boni Biery	General	It is imperative the permit address the need to require USDOE investigate what is in 40 miles of unlined, 50 foot deep trenches filled with radioactive and hazardous wastes, and to insist these are cleaned up; or at the very least monitored under RCRA.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Boni Biery	CWC	It is Imperative the permit includes language to determine exactly what is contained in the 68,000 drums of stored waste in Hanford's Central Waste Complex AND to remove and treat the wastes within 3 years. (The law says wastes can't be stored without knowing what they are comprised of, and limits storage to 1 year.)	The Addendum A (Part A Form) Identifies the amount and types of materials. It does not go into specifics on designation and storage requirements. This information is contained in Addendum C (Process Information) for storage and Addendum B (WAP) for designation. All waste will be designated in accordance with WAC 173-303-070 and -170.
Boni Biery	General	It is imperative: to include both column soil monitoring and groundwater monitoring in any area where wastes have been stored.	Within the HFFACO, the M-024 TPA milestone sections, there are requirements for monitoring groundwater. The permittees are required to sample wells and soil for RCRA and/or CRCLA sites.
Boni Biery	SST	It is Imperative tanks be found; contents identified; and be emptied to fullest extent possible according to Washington State Hazardous Waste laws; not just buried.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Boni Biery	General	the general permit bars USDOE from adding new landfills for offsite waste, including any new waste from the Pacific NW National Lab and weapons programs. There is already enough waste on site to contaminate the area for near eternity.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Boni Biery	General	I was born under a cloud of nuclear material in Bellingham more than half a century ago. Since then the state has continued to increase the toxic load on our environment; including water, land, air, wildlife and humans. It's long past time to stop this. It is time for Governor Gregoire to keep her 2008 commitment to use the State's authority under both federal and state hazardous waste laws to bar USDOE from adding more waste to be disposed at Hanford so long as existing wastes are projected to contaminate groundwater flowing to the Columbia River. The permit should bar any more new offsite waste from being disposed at Hanford in the new landfills USDOE proposes to build for offsite waste.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Boni Biery	General	These are all common sense requirements that continue to need enactment; identify the mess and clean it up; don't pile on. Now is the time. A large portion of the 30,000 truckloads of radioactive wastes will go through heavily populated areas like downtown Portland and Spokane. Radiation from the "GTCC" waste is so high that the casks carrying on trucks can not keep the radiation level in check without making the casks too heavy to for the trucks to haul; exposing millions to radiation exposures and potential radioactive spills. A prior USDOE study of similar wastes estimated over 800 adults would die from cancer caused by the exposure to trucks heading to Hanford. There has to be a better way. It's time for some other state to take on this responsibility for the next half century. Washington State's population and environment have done our share.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Brian Epple	General	So, I recently saw an interview on TVW with the director of the Department of Ecology, and he spoke about a lot of issues, but in regards to Hanford, mentioned just a small line that it was the largest environmental cleanup project in the world. And that struck home with me in regards to offsite waste issues, and I know that this permit isn't dealing with that, but my concern is if this is the largest project in the world now, I would like to see it dealt with as is before we increase the size of that project. And I think that this is an opportunity where the state can assert its power through this permitting process and deal with that now. And I would encourage you to do that.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Brittany Harris	SST	From Heart of America: According to a Department of Ecology mailing received 6/28/12 (publication number 12-05-012) and a 6/26/2012 announcement on the Department of Ecology's webpage for the Hanford Facility Dangerous Waste Permit, Hanford's Single-Shell Tanks (SSTs) are being added to the proposed RCRA permit. The publication announces that a public hearing will be held in Richland, WA on 8/7/2012 at 5:30 p.m. It also announces that the Department of Ecology will not issue a State Environmental Policy Act (SEPA) determination with this unit. This is concerning for several reasons. First, the SSTs have the potential to be one of the most contaminated and important units covered by the state's RCRA and HWMA authority. To separate these tanks from discussion of the entire permit is inappropriate. We also question why the Department made the decision to host only one public meeting in Richland. The Richland permit hearing in June had a very low turnout; in contrast, the corresponding hearings in Seattle, Spokane, and Portland were very highly attended. As some of us attended all four meetings on the Hanford permit, it was very clear that the vast majority of individuals attending the Richland hearing in June 2012 were Ecology employees based in the Richland office. Isolating consideration of the SSTs and holding a single hearing in Richland ensures the vast majority of Washington citizens will not be able to participate in a meaningful way. The Department of Ecology has not met its duty to disclose the relevant information to the public. The Department of Ecology justifies the lack of a SEPA determination for the Single Shelled Tanks by relying on a previous Environmental Impact Statement (EIS). This EIS was completed in 1996, and supplemented in 2001. Since the	Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal. Ecology encourages public information and involvement in the cleanup of the Hanford Site. We agree that members of the public should have the opportunity to receive information about Hanford and become involved. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks have either been removed or are at the top of the list to be removed. Waste will continue to be removed from the Single-Shell Tanks, to the Double-Shell Tanks, and to the Vitrification Plant until all waste is removed from all tank farms.

Commenter	Unit Group	Comment	Comment Response
		completion of this EIS, evidence emerged that confirmed leaks from the SSTs had reached the ground water, and that the contamination has moved far more rapidly than previously projected. The existence of such leaks and their impact on the ground water was not addressed in this earlier EIS. The prior EIS and Supplement assumed that SSTs would be emptied long before the year 2040. Now, the schedule, which the proposed permit reflects, is for retrieval of tank wastes from SSTs to take until 2040. There is no publicly available analysis of whether this creates unacceptable risks and whether the proposed permit conditions mitigate those potential risks and impacts. The decision not to conduct a SEPA determination at this time is troubling and not in compliance with RCRA and SEPA requirements. Therefore, we ask that you withdraw the determination of non-significance regarding the current phase of the RCRA permit, and replace it with a determination of significance and issue an EIS. This EIS should identify the significant impacts and explain whether the permit will adequately address these impacts.	

Commenter	Unit Group	Comment	Comment Response
Brittany Harris	General	Hello Ms. Peery, On Monday, August 6, 2012, the EPA sent the attached email to Heart of America Northwest. The EPA requires an extension of time to comply with Heart of America Northwest, Heart of America Northwest Research Center, and the Yakama Indian Nation's FOIA request 1-FOI-00301-12, which requests documents necessary to our commenting on the Hanford RCRA permit. The new date for disclosure determination and response to our FOIA request is September 5, 2012. Consequently, Heart of America Northwest, Heart of America Northwest Research Center, and the Yakama Indian Nation request that the Department of Ecology extend the RCRA public comment period beyond the September 30, 2012 deadline. The EPA's FOIA extension necessitates an extension of the RCRA comment deadline because the requested documents are not yet available to the public. Without these documents, the public cannot contribute informed comments on the RCRA permit. Moreover, the Department of Ecology has already expressed that they intend to reply to our other RCRA-permit related PRA request no sooner than the end of August. These documents are equally crucial to the public's ability to make informed comments. This extension alone should require the public comment period on the Hanford RCRA permit be extended. I have CC'd this to Hanford@ecy.wa.gov. Please consider this a formal comment. Thank you.	The public comment period started on May 1, 2012, and was extended past the required 45-day period. The public comment period was a total of 174 days to allow enough time for the public to review the draft Rev. 9 Permit and provide comments.

Commenter	Unit Group	Comment	Comment Response
Brittany Harris	General	I am concerned at the SEPA determination of non-significance for the entire Hanford permit did not include consideration of the single-shell tanks themselves, which should be included in the cumulative impact analysis in the SEPA determination. And you shouldn't be able to avoid a determination of significance by breaking an action into small component parts. So, I believe there needs to be comprehensive, site-wide environmental impact statement that includes analysis of the single-shell tanks. Third, I'm concerned that the agencies are relying on an outdated environmental impact statement whereas a NEPA analysis -- I'm sorry, [inaudible]? I'm sorry. [It's a little unclear, so 3:18] I'll keep talking. They seem to be relying on the [inaudible] analysis created in the 1990s, which was prior to the discovery that a million gallons at least, possibly six million, have leaked and that was back in 2000. I believe this is significant new information that requires a determination of significance and a new environmental impact statement. I understand there's a supplemental statement on the way, but that's not yet complete and the agency is not relying on it.	Ecology provided a SEPA determination for Rev. 9 in 2012. SSTs received a Determination of Significance and Adoption of the TWRS EIS for the Rev. 9 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.
Brittany Harris	SST	Finally, just a few things. I don't see any requirements in the permit to undergo leak detection or removal of any leaks or spills during the waste retrieval activities in the single-shell tank units. I believe that should be included. I believe there should be something in the permit that says contents from the tanks should be removed on a priority basis. Known leaking tanks should be the first priority, they should be emptied first.	The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leak is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks have either been removed or are at the top of the list to be removed.
Brittany Harris	SST	And finally, it seems like this is taking a really long time to clean up and I'm wondering if the schedule is actually enforceable. I believe there should be some things put into the permit that says, "They will be cleaned up by this date or..." and then there should be consequences. I believe there needs to be an enforceable document and I think that's required by state and federal law.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule.

Commenter	Unit Group	Comment	Comment Response
Carol Hiltner	General	Over and over again, the governmental bodies responsible for dealing safely with radioactive waste have dropped the ball, lied, covered up, and procrastinated while existing radioactive waste leaks into the Columbia River and out into the ocean. NO MORE!!!! Best regards, Carol Hiltner	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Carol McCormmach	General	Letter to the Washington State Department of Ecology: Washington State must use its federally granted authority to say: No More Waste at Hanford No new offsite landfills We insist: Clean Up--Don't Cover Up the existing contamination Hanford is the most contaminated site in the Western Hemisphere. We say NO to more poison. There are 40 miles of unlined trenches full of it. The Columbia River is already in peril, as are we whose lives are rooted in the region. Are we to be the next Fukushima? According to experts, nuclear & radioactive waste should be put into granite. The USDOE must do better than 99% site contamination removal. It is despairing that Washington State would give the USDOE until 2040 to empty the single-shell tanks of high-level nuclear waste or would allow dirt caps over existing leaking tanks when the USDOE's own Tank Closure & Management EIS states that putting dirt caps over areas & leaving the last 1% of contamination (which may contain up to 20% of the metal radionuclide content) in the tanks, along with leaks & contamination from a billion gallons of discharges, will gravely contaminate the groundwater. Is it true that some double-shell tanks are also beginning to leak? We of northeastern Oregon & southeastern Washington State cherish this bunch-grass West that the Federal government obviously despises, giving itself permission to treat it as a toxic garbage pit. The USDOE's appalling malingering in the cleanup of the Hanford Nuclear Reservation has been an open sore in the hearts of many here for so long that they may think we've grown numb to it. No!	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Cassandra Oakes	General	Pls stop dumping nuclear waste. There not any birds flying in the area. So it's got to be terrible	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Regarding the number of "birds flying in the area," we were unsure if you were addressing the Hanford Site.
Celeste McCollough Howard	General	I am writing as a resident of Washington County, Oregon, who is concerned that the draft Hanford Hazardous Waste Permit may not contain stringent enough language to bar the addition of offsite waste to any part of Hanford or to ensure the regulation, removal, and treatment of wastes in all forty miles of unlined trenches. I attended the 13 September public hearing at Ambridge Event Center in Portland. I am aware that federal hazardous waste law gives the State of Washington authority for the permit to say "No more waste." I believe that the draft permit does not contain sufficiently clear and strong language. It must bar offsite waste from being added to any landfill at Hanford. That language must include barring offsite waste from being added to any new landfill, vault or boreholes that USDOE may propose at any time in the future.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

Commenter	Unit Group	Comment	Comment Response
		This addition to the permit is important to me as an Oregon resident because it affects the level of contamination in the groundwater. I understand that there is already groundwater contamination that exceeds safe drinking water standards under about 70 square miles of the Hanford site, and much of this excess contamination is close to the Columbia River. Contamination of the Columbia River affects the health of populations and food sources in both Oregon and Washington. Since the wastes already at Hanford are projected to cause increased contamination as time goes on, surely the permit must bar adding more such waste before the area has been fully cleaned up. No more waste till the existing clean-up is completed! Further, it appears clear to me that USDOE illegally disposed of chemical hazardous wastes in the 40 miles of unlined trenches and failed to document where and what these wastes are. It is unconscionable that the draft permit should remove these trenches from state jurisdiction! Moreover, it is not sensible to pretend the wastes aren't there and just cover them up with dirt. They are certainly contributing to the groundwater contamination. Either USDOE should be required to investigate and characterize these wastes in full detail, or USDOE should be required to remove and treat them. Washington's Department of Ecology should be enabled to perform groundwater monitoring and soil column monitoring around all these trenches. All chemical wastes are problematic for life on planet earth, and radioactive wastes are most problematic of all. It is my firm resolve that Hanford not become a depository for further radioactive waste. Only if such depositories are made unavailable anywhere on the planet can we hope for a future in which the consequences of nuclear technology including the potential for another extinction of planetary life can be avoided	The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Groundwater Monitoring Plans within the Hanford Site-wide Permit, Rev. 9A have been updated to reflect the most current information for each TSD facility. When the Groundwater Monitoring Plans need to be updated, they will be submitted by the Permittees through a permit modification, according to WAC 173-303-830.

Commenter	Unit Group	Comment	Comment Response
Charlotte Kanemori	General	Dear Sir, At Hanford there are 40 miles, 40 miles of leaking unlined ditches with radioactive and chemical wastes. These wastes are going in plumes to the Columbia River. If this situation were happening near the Potomac River, be sure, that politicians and citizens would be crying FOUL!!! Cleanup Hanford's radioactive and chemical wastes before any more wastes are added to Hanford. Monitor the ditches with the radioactive wastes until they are cleaned up!!!! DON"T PUT DIRT ON THE DITCHES. I think just putting dirt on the wastes is just putting out of site and not doing anything.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Cherie Lambert-Holenstein	General	For two and a half decades, I've attended your hearings. My comments have varied, but my message has always been the same. One, clean up the poison that is Hanford as much as possible. It can never be totally cleaned up. And two, do not, do not accept any more waste. Your job should be to stand up to the state and federal governments because you more than most of us know the terrible nightmare that is Hanford. I will submit written testimony with the accurate information that the Heart of America Northwest provides me. And thank you, Gerry and the staff. Just a brief aside. I find this picture and caption very interesting. I live in Portland and I've buried many cats and dogs in my yard, and even friends' and my kids' girlfriend/boyfriends' cats and dogs. I have a big yard. And the city code requires that the hole to put the animal in has to be as deep as the animal measures from tip of the nose to the start of the tail. When we buried our 95-pound malamute, that was over three feet deep and I don't live near any river. And yet, this picture shows me 40 miles of unlined trenches filled 50 feet deep with radioactive and toxic waste and this is leaking into the river. This is leaking into our rivers. So, please, please, work for Mother Earth. Please. Not the federal government. Not the state government.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Cherie Lambert-Holenstein	General	As always, my comments are: do not allow any more waste, what a euphemism for such a disaster that Hanford is. No more. That's a period not a comma, not a semi-colon, no more waste. And number two, clean up what's there. It appears that the permit plan must need a lot of revision. It also appears that there are no contingency plan, no schedule B, no backup plan. I would bet that the providers of the permit plan when driving an automobile, I bet they have a backup plan, a schedule B, maybe just simply a spare tire or AAA. And I would think that Hanford deserves at least that much consideration for a plan B.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

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Chris Arthur	General	I am in support of cleaning up all the radioactive and chemical waste as soon as possible technologically. Not just some of it, or as little as anyone can get away with. We the taxpayer made the mess, and we the taxpayer must clean it up, all of it. I know very well that DOE would love to ship more waste to Hanford, because it thinks Hanford is "nowhere". But we here love the land, and the river , and the salmon and all our relations. So we say no to new waste, and we do not find 2014 far enough in the future to decline to accept new waste at Hanford.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Chris Arthur	WTP	I am not in favor of constructing any plant which will in fact, in the near future, be used to clean up waste shipped from other places. Thus due to the miserable record of actually cleaning up the past 50 years. (except the Navy waste already agreed to, and the little bit from universities already agreed to.)	The WTP Facility has been constructed and permitted to treat and dispose of waste from onsite facilities. Ecology has not approved permit language in the WTP Permit to include the importation and treatment of waste from offsite facilities. Under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE or DOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Chris Arthur	General	So I would like the permit to state that DOE agrees that waste from outside Hanford will not be shipped there for the next 2000 years. Maybe by then DOE will have shown it has the capacity and the will to have cleaned up what it dumped.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Chris Arthur	WTP	I'm a physician. I'm retiring from clinical medicine next month in order to devote my time to the health of the Columbia River because it is so unhealthy. It's hazardous to transport waste. Obviously, it's hazardous to store it. It's hazardous to let it leak. It's not proven that storage can or will be adequate at Hanford. It is ridiculous to ask us to sign off on something that hasn't been properly planned or timed out. It does reduce trust when somebody says, "Sign up to go across the Atlantic with this aircraft. It's not been built yet, you know. We've go the tail." No. So, I am asking, please tell us the facts about this vitrification plant. What has it already been doing in the prototypes, right, the small one? What types of stuff can it deal with? So we can see how much percent of problem might be alleviated with it. The other thing I'd ask is who's making a profit on it? I would like to know. [Inaudible comment from audience 37:53] Chris Arthur: Right. The other thing is the education and alerting people and children to hazards. As you can see, I'm wearing a little costume. This is from the mountain that looks after Hanford Plateau, [inaudible 38:09] look at that. The great mountain, the guardian to the Columbia. Has a white eagle and a red eagle, sits on his shoulder. You can see it. It's real stuff. You can go and look at the eagle. You can tell it. Many Native American myths talk about this. We must put money, time, and effort into cleaning up the mess we made, but we must put love and respect for our life on earth for many generations to come forward. It is not convincing when we just hear straight talk or little bits of stuff we're going to do. What's convincing is when we hear the heart. I call you to speak from the heart and you would be much more convincing and you would come up with a better product.	The Vitrification Plant design and concept has been proven in USDOE facilities. The waste that will be vitrified will come from the Double-Shell Tanks at the Hanford Site. The waste characterization is included in the WTP Permit, so there are no unknown elements. Ecology has been permitting the WTP Facility in a phased permitting approach to ensure the design is sound and any technical issues are addressed as each system is permitted. Prior to the receipt of waste, Ecology will review permit submittals to ensure that the facilities are constructed according to the permit prior to approval of the Permittees' certification of design. Also prior to the receipt of waste, the WTP Facilities will undergo "cold commissioning" in which simulant will run through the facilities to determine if there is new information that is key to processing tank waste. The information will be applied to the permit prior to "hot start" or the receipt of tank waste. Ecology's mission is protection of human health and the environment and we expect the Permittees to meet their commitments to clean up the Hanford Site and ensure safe disposal of the waste.

Commenter	Unit Group	Comment	Comment Response
Christine Peine	General	Thank you everyone who brought this hearing into being and for coming down to Washington. I'm originally a Washingtonian with a degree in environmental design and architecture from the University of Washington, and am thus quite unemployable in Duck Land of Oregon at this time. I was a member of Puget Sound Governmental Conference Green Space under Bob Schindler, Puget Sound Governmental Conference. I was a member of [COPERG 1:08:06] in the early '90s in Colorado. [I'm a] certified medications administrator [whom] Colorado lapsed. I was the other Christine on campus with Christine Gregoire, whom I called. If you have a pen ready, her phone number is 360-753-6780, 360-753-6780. And Becky or Betty will take your opinion about this. Today I called one of our state legislators in Washington and asked if there was a law to prevent any more deposits of radioactivity and chemicals in Hanford and she says, "No, there is no state law in the state of Washington." So, during January of next year, which is a little too late for the September 30th permit, January to April, the end of April is when the Washington State legislature convenes. Now, I at this time did not know when the Oregon legislature convenes. I haven't spend that much time in Salem since I was a little kid. So, I would like to add this comment that I agree with Paige Knight when she commented that to move radioactivity and radioactive waste, to move it is dangerous. Southern California, Mexico, New Mexico, Turkey Point in Florida, Three Mile Island, if necessary, waste should be deposited back in the mountains of Colorado that are not threatened by earthquake, hurricanes, etc. Treatment sites should be taken onsite. As Paige Knight said, when you move it, there's more waste created. I would definitely support that Hanford cleans up Hanford and that no wastes are transported on our state highways.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Chuck Johnson	General	I'm concerned about the same things that Gerry Paulette of Heart of America Northwest has laid out, in particular, the fact that there's no ban on bringing additional waste to Hanford in this permit in direct contravention of the State of Washington ballot measure overwhelmingly passed by the people of Washington in 2004. Secondly, there's no commitment to excavate and clean up tank waste in the Central Plateau. That's not required by the permit, including known plums of plutonium that will find their way to the river. Thirdly, there's inadequate regulation monitoring of 40 miles of waste trenches on the Hanford site. These are issues that groups like Columbia Riverkeeper, Heart of America Northwest, Hanford Watch, Physicians for Social Responsibility, and all of the other citizen organizations in both Oregon and Washington have been talking about for decades. Therefore, I'm deeply concerned about the processes that we've been engaged in. I'm especially disturbed that the clear wishes of the citizens of Washington are being ignored in not banning additional waste to the site. If a Washington agency ignores its own people, what hope do we in Oregon have to overcome the nuclear tyranny that reigns upstream from us on the Columbia River? It's time for those of us in the Northwest to say enough. No more waste at Hanford. Clean up the waste that's already there completely. If the State of Washington continues to ignore the people on this issue, we'll have no recourse other than civil disobedience. The decisions you are making are of that magnitude and the current inadequate plan cannot stand.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Chuck Johnson	WTP	Just want to highlight a couple of things. One is that really seems clear that there needs to be a Plan B for the vit plant and for the failing tanks that we're discovering. And this length of time in which even under the best case scenario that we empty the tanks by 2040, the single shell tanks by 2040, just does not seem realistic in terms of keeping the wastes from further leaking and causing contamination problems.	The WTP facilities necessary to begin treating low-activity tank waste were ready to receive tank waste in 2025, in the Direct Feed Low Activity Waste configuration.
Chuck Johnson	SST	One of the things that didn't come up in the question and answer period, but I hope you do explore, I don't know more about it because this is the first time I heard about it tonight was Gerry was talking about possibly treating 12 of the tanks at the Perma-Fix Facility, treating waste from them and freeing up space in tanks for -- emptying some tanks and freeing up some space in the tanks. And I don't know whether that's a valid way to proceed, but it seems to me that all sorts of different options are going to need to be considered in order to develop some sort of a Plan B, because seems quite likely that the vit plant isn't going to work. And finally, of course, if you do need to build additional tanks, I would hope -- and it does seem obvious, if these double-shelled tanks are already starting to fail, hopefully you'll be involved in making certain that additional -- that the new tanks are built more structurally sound than these current ones have been.	Ecology acknowledges the comment as a suggestion for future actions to be taken at the Hanford Site to alleviate issues. However, the suggestions here are outside the scope of the Permit.
Chuck Johnson	General	Finally, from John's comments, I just want to draw your attention to one specific thing, which you said under the SEPA Determinations, his third recommendation there was that you withdraw its determination of non-significance regarding the current phase until it is known what all the Hanford site mitigation plans will be. I think that's a very prudent thing for you to consider doing. I don't think you should -- I know you're trying to separate these tracks in different ways, but it seems to me that you should be consistent in the way that you're approaching this, and obviously, it's hard to say that there's a determination non-significance if you don't know what the mitigation plans will be. And so, I totally agree with what John had to say in that with his comments.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Connie Weiss	General	Count me among the concerned citizens who feel we must not endorse the proposed permit that would make Hanford the NATIONAL waste dump sight. To keep our land and water in the Northwest clean and healthy, it is imperative that the current waste is cleaned up and no more is imported from around the country. What is more important than quality of life, and for that matter life itself? Please preserve the beautiful land and beings we are fortunate to live alongside here in the Northwest. Thank you,	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Connie Weiss	General	I agree with the comments that have been made so far, and I fell like the gentleman in the Hawaiinish shirt put things very well in terms of some of the dangers. I think when I just read about this and think about our Columbia River and the paradise that we have here, and how the Northwest has been such a blessed place to live basically and how with this leaking into the Columbia, into the groundwater and into the river, we can destroy what mother earth has given us. And also the idea of 2022 this permit expiring, it's like why can't we just make something final? And the other thing is that the idea of transporting waste along the highways which are already overcrowded. My daughter was just saying, "Why is 217 like a parking lot all the time?" Well, we really don't have enough infrastructure and roads and bridges to take care of just what we're doing now, and now we have the threat of having dangerous things on those already inadequate infrastructure things. So, I just wanted to say that just as a person that lives here I feel like we are extremely lucky to have had what we've had. And I would like to not see us destroy it. I would like the permit to be very strong about doing things now, about the leaking situation, and about not allowing outside waste to come in.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Crystal Elinski	General	I will submit with three of my friends and three of their friends something for the written record, but I just want to reflect the mood that I feel tonight and in this room. Mostly I feel like life is very surreal, but lately, I feel like everything's pretty much at the end. There's a reason why it's okay from them to send LNG in to have drones, and the coal been here for 20 years and it wasn't so long ago that I was an undergrad and we were trying to protect the last of the old growth forest. And every time I go anywhere around the state or around the country, back to Arizona my friends, people suffering from uranium mining and whatnot. I lived in Hungary for some time, people suffering from Chernobyl. I moved there. And I just feel like the reason why we're digging up we're doing the Keystone XL Pipeline and the tar sands is because everything is destroyed. And all we can do now is speak the truth. I think the best thing you could do as the Department of Ecology, Christine Gregoire and the history that we have as activists and protecting Cascadia is to the get the information out there to people that don't know, because people do not know. We are such a small minority of people. The average person does not know how polluted our world is. I think we know about Global Warming and how people deny it, in this country anyway, and I think that's just part of this surreal cap that we've enclosed ourselves in. And at this point, I'd say Department of Ecology could be a representative of the people by getting the information out as much as you can, disseminate that. If you're monitoring it, could you please get it out there in a format that's, like one guy suggested, on billboards. I would really like that.	We value meaningful public involvement. With this in mind for the upcoming draft Rev 9A Permit renewal comment period, we are going to have multiple meetings, both informational and public hearings. This information will also be advertised and shared with the media. The meetings will be offered in two different formats, online and in-person. Additionally, we are going to be sending several advance notices to allow the public plenty of planning time for attendance or involvement. Public comment periods are your opportunities to comment on Hanford cleanup. We review and respond to every comment we receive. Our Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work.

Commenter	Unit Group	Comment	Comment Response
Dan Serres	DST	Columbia Riverkeeper (Riverkeeper) submits these comments regarding the Washington Department of Ecology's ("Ecology") proposed Hanford Site-Wide Dangerous Waste Permit ("Permit") under the Resource Conservation and Recovery Act (RCRA). Riverkeeper represents over 3,000 members in Oregon and Washington and regularly comments on decisions impacting Hanford and the Columbia River. The Hanford site presents extremely difficult challenges for regulation under RCRA because of the demonstrated severe risk that chemical and nuclear wastes pose to the Hanford Reach, Hanford's groundwater, and Hanford soils, vegetation, and wildlife. Additionally, chemical and radioactive waste on the Hanford site are mixed in large volumes and dangerous concentrations, complicating the cleanup effort. While RCRA is specific to the regulation of chemical and mixed wastes, Ecology must consider the comprehensive waste problem at Hanford in order to effectively steer the cleanup effort. In addition to the waste being highly dangerous, much of Hanford's infrastructure is aging and increasingly at risk of releasing additional chemical and mixed waste into Hanford's soils and groundwater. For example, in recent months the Department of Energy (DOE) has learned that, for the first time, a double-shelled tank leaked dangerous waste into the annulus of the double-shelled tank (the area between the inner and outer shell). The discovery of leaked waste in the annulus provides a stark reminder that Department of Ecology must develop Permit Columbia Riverkeeper Comments on Hanford Site-Wide Dangerous Waste Permit conditions that provide for timely and robust cleanup actions. The Permit is a vital tool for Ecology to ensure that the cleanup effort is designed to deal with issues such as leaking single and double-shelled tanks. More broadly, the Permit is how Ecology ensures Hanford cleanup meets state laws for protecting our air, land, and water. It covers the treatment, storage, and disposal of mixed chemically dangerous and radioactive waste. We thank you for the opportunity to comment on the Permit and for providing an extended public review period and supplemental hearings. Please consider the following detailed comments on the Permit.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.

Commenter	Unit Group	Comment	Comment Response
Daniel Serres	General	I. The Permit should include a condition the bars new off-site waste to Hanford During public hearings, Ecology received one overwhelming comment from the public: condition the Permit to prohibit the import of off-site waste to the Hanford site. Ecology has responded that its current moratorium on new streams of off-site waste effectively fulfills this goal, but we are concerned that circumstances may change in DOE's waste management plans at a national level. It is appropriate and reasonable for Ecology to prohibit the import of new offsite waste streams as a general condition, as well as a condition for specific units such as the Waste Treatment and Immobilization Plant (WTP). The Draft Tank Closure and Waste Management EIS (TC/WM EIS) (see Appendix U of TC/WM EIS) demonstrated that, for generations to come, Hanford's groundwater and the Columbia River will be polluted by chemical and radioactive pollution that is already at Hanford. Against the backdrop of excessive contamination of the Hanford site, its groundwater, and the Columbia River, Ecology would be prudent to prohibit new imports of off-site wastes, which would exacerbate the current problem. The Hanford Advisory Board (HAB) suggested that Ecology employ a Permit condition requiring the use of a Risk Budget Tool to address the cumulative impacts to groundwater of Hanford's pollution. If, as the TC/WM EIS suggests, Hanford's risk budget is glutted by on-site wastes for the foreseeable future, the HAB's suggestion would empower Ecology to protect Hanford from adding new off-site wastes to Hanford. We urge Ecology to acknowledge that the site already contaminates over 75 miles of groundwater above drinking water standards, and that Hanford should reserve its capacity for nuclear and chemical waste cleanup for Hanford's own on-site wastes.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Daniel Serres	General	II. The Permit should have contingency plans for key problem units Several operational and cleanup units of the Hanford site require detailed contingency planning because they present key choke-points for successful cleanup operations. Additionally, recent information indicates that both the tank farms and WTP may face leaks and engineering and design flaws that are not fully addressed in the Permit. a. Ecology must ensure that WTP will operate successfully In recent months, major design and safety concerns have emerged regarding the WTP. Ecology has an opportunity in the permit to ensure that U.S. DOE and its contractors move quickly but carefully towards the goal of vitrifying Hanford's dangerous radioactive and chemical wastes in Hanford's tank farms. If the WTP is significantly delayed or unable to operate, the entire Hanford cleanup enterprise will be severely hampered. Liquid nuclear waste in single- and double-shelled tanks will pose a risk to Hanford's soils, groundwater, and the Hanford Reach until the WTP can effectively convert dangerous wastes into a stable, glass waste form. The Defense Nuclear Facility Safety Board (DNFSB) has issued recommendations for improvements in the WTP design, many of which stem from disputes regarding the design of the WTP. Leading engineers on the project contend that the project design may contain critical flaws, and that the DOE must address key safety and design issues before proceeding with more construction. The DNFSB recommended that DOE address: - changes in safety-related design criteria resulting from modification of the material at-risk, - changes in design strategy to address hydrogen in pipes and ancillary vessels, - criticality safety concerns and other safety-related risks for the pulse jet mixing system, - reclassification of safety-related systems, structures, and components, and - safety-related design aspects of new facilities or modifications of existing facilities needed to deliver high-level waste feed. Because Ecology must permit the operation of the WTP under RCRA,	All operating, closure, and post-closure unit groups have a Contingency Plan in the form of a Building Emergency Plan or a Facility Response Plan. The Contingency Plans were updated to ensure all WAC 173-303 regulations and Washington State Department of Ecology permit application requirements are met. Ecology, USDOE and Hanford Contractors met with workshops to agree on a template that meets the requirements for a Contingency Plan. In addition, Attachment 4, "Hanford Emergency Management Plan" is updated to ensure the entire Hanford Facility can appropriately respond to emergencies. Energy Northwest (Columbia Generating Station) stores their used nuclear fuel on site after 6 years in the reactor core. The containers are stored in a deep pool for 5 years and then moved to a safe above-ground dry storage. More information can be found on the Energy Northwest website.

Commenter	Unit Group	Comment	Comment Response
		Pacific Northwest residents are relying on Ecology to ensure that DOE resolves critical design and safety issues prior to the operation of WTP. Indeed, Ecology must require independent verification of key design elements (such as pulse-jet mixers) prior to their construction and installation, well before the WTP is engaged in vitrification of mixed and nuclear wastes. The Permit should be conditioned to require a detailed hazard analysis to be performed well before commissioning of the WTP, in order to identify and evaluate chemical and radiological hazards that occur at the facility. At the same time, Ecology should require a complete and robust Emergency Response Plan (ERP) to provide for an acceptable waste stream into the WTP. The ERP must account for potential failures and catastrophic events at nearby facilities, such as the Columbia Generating Station. Ultimately, Ecology is responsible for ensuring that WTP meets the requirements of RCRA. In this effort, we encourage Ecology to include permit conditions that address key engineering concerns, including mixing of non-Newtonian fluids, particle settling of radionuclides that could generate a criticality, hydrogen gas generation and deflagration, and erosion and corrosion. For example, DOE has acknowledged that material flowing through the WTP system and infrastructure feeding it from the tank farms may be more corrosive and damaging than previously acknowledged. Ecology should require that DOE provide a comprehensive analysis and contingency plan for the WTP if corrosion damages the equipment that feeds WTP or vitrifies wastes.	

Commenter	Unit Group	Comment	Comment Response
Daniel Serres	SST	II. The Permit should have contingency plans for key problem units Several operational and cleanup units of the Hanford site require detailed contingency planning because they present key choke-points for successful cleanup operations. Additionally, recent information indicates that both the tank farms and WTP may face leaks and engineering and design flaws that are not fully addressed in the Permit. b. The Permit should address the potential for leaks from single-shelled and double-shelled tanks. The environmental impacts of reasonably foreseeable leaks from both single- and double-shelled tanks should motivate Ecology to develop contingency plans for releases of chemical, mixed, and radioactive wastes. Because tank waste is laden with both chemical and radioactive pollutants, Ecology should include a permit condition that mandates a response to potential leaks from the tank farms. As noted above, DOE has recently discovered that waste has leaked between the inner and outer shells of tank AY-102, one of Hanford's oldest double-shelled tanks. For years, DOE has recognized the potential for leaks from aging single-shelled tanks on the Hanford site. Going forward, Ecology will have to incorporate DOE's concerns about single-shelled tanks while also preparing for potential leaks from double-shelled tanks. The recent AY-102 discovery is a wake-up call to Ecology and DOE: Hanford requires more robust waste storage until WTP is capable of vitrifying and immobilizing Hanford's wastes. Going forward, Ecology should develop a clear "Plan B" for storage of Hanford's wastes if 1) the WTP is delayed by engineering and design flaws, and 2) single- shelled and doubleshelled tanks leak unexpectedly. In either case, new double-shelled tanks may be required to prevent waste from percolating into Hanford's soils, its groundwater, and ultimately traveling to the Columbia River. We recognize that it is difficult to both maintain waste acceptance criteria in the tank farms for shipping waste to WTP while also planning for potential failures in the tank farms, themselves. However, the Permit provides Ecology with a critical tool to ensure that the entire system – from tank waste to glass logs – can successfully protect the Hanford site and the Columbia River. Ultimately, the permit should include conditions that address potential failures in aging tanks.	This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan. Rev 9 permit conditions require monitoring for and respond to leaks in DSTs. One double-shell tank, 241-AY-102, has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.

Commenter	Unit Group	Comment	Comment Response
Daniel Serres	General	II. The Permit should have contingency plans for key problem units Several operational and cleanup units of the Hanford site require detailed contingency planning because they present key choke-points for successful cleanup operations. Additionally, recent information indicates that both the tank farms and WTP may face leaks and engineering and design flaws that are not fully addressed in the Permit. c. The Permit must consider contingency plans catastrophic natural disasters and seismic events The environmental impacts of, and a contingency plan for, reasonably foreseeable natural disasters and seismic events must be incorporated as a general condition for the operating and closure units of the Permit. Hanford presents a uniquely difficult challenge for managing cleanup because of the long-term nature of the contamination and the geologically active dynamics of the Hanford area. We encourage Ecology to assess the combined impacts of a seismic event at the Hanford site – an event which could disrupt power sources, the Columbia Generating Station, the WTP, and other facilities at Hanford. While the Permit should address each unit for its ability to withstand an earthquake and a power disruption, the Permit must also contain a condition that requires DOE to plan for simultaneous failures in multiple Hanford RCRA units.	All operating, closure, and post-closure unit groups have a Contingency Plan in the form of a Building Emergency Plan or a Facility Response Plan. The Contingency Plans were updated to ensure all WAC 173-303 regulations and Washington State Department of Ecology permit application requirements are met. Ecology, USDOE and Hanford Contractors met with workshops to agree on a template that meets the requirements for a Contingency Plan. Energy Northwest (Columbia Generating Station) stores their used nuclear fuel on site after 6 years in the reactor core. The containers are stored in a deep pool for 5 years and then moved to a safe above-ground dry storage. More information can be found on the Energy Northwest website.

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Daniel Serres	WTP	III. The permit should ensure that waste is durably immobilized in a form that is "as good as glass" In addition to ensuring that the WTP is capable of receiving the waste that is produced by the tank farms, we request that the Permit include a condition that requires DOE to produce a waste form that reliably stabilizes and immobilizes the highly dangerous waste from Hanford. In particular, we request that waste from the tank farms be properly characterized and immobilized in a durable waste form with performance at least equivalent to glass for the entire waste volume. We support vitrification of wastes, and we oppose alternate waste forms unless their performance can be demonstrably proved to be as "good as glass." In its September 2012 advice, the HAB struck a similar note and called for Ecology to include a Permit condition that "tank wastes are properly characterized and immobilized in a durable waste form with performance at least equivalent to glass for the entire waste form." In recent months, DOE has indicated that it will invest in new waste treatment strategies, including bulk vitrification and other waste treatment methods that conflict with Ecology's goal to produce a treated waste form that is "as good as glass." We strongly support Ecology's assertion that the WTP should produce highly stable and immobile output from waste treatment activities. Ecology should condition its permit so that DOE requires WTP to produce highly stable and immobile forms of nuclear, chemical, and mixed wastes. DOE cannot proceed with a short-cut method of treating mixed wastes, and Ecology should include a Permit condition that explicitly requires the protection of Hanford groundwater from waste immobilization strategies that fail to prevent contamination into soils and groundwater from dangerous wastes.	The WTP Permit contains permit conditions and an interim compliance schedule that provides Ecology with the opportunity to review and comment on the WTP design and waste analysis plans (Chapter 3) to ensure characterization of tank waste prior to receipt of the waste at WTP. Currently, the Waste Treatment Plant configuration supports vitrification as the primary waste treatment processing mechanism. The Tri-Party Agreement supports this by requiring the vitrification of wastes, both high-level and low-activity waste. The Integrated Disposal Facility waste acceptance criteria requires that incoming waste be vitrified.
Daniel Serres	General	IV. The permit should require that all stack exhaust meet NESHAPs and RCRA emission criteria. Riverkeeper strongly urges the DOE to protect the health of Hanford workers by evaluating the chemically toxic and radiological risks of Hanford air emissions at the point of emission at the Hanford site. Columbia Riverkeeper urges Ecology to condition its Permit to protect workers by evaluating the toxic pollution that is produced by emissions	Ecology evaluates and regulates air emissions under the Washington Clean Air Act (CAA), federal CAA, Washington's dangerous waste regulations, and the federal Resource Conservation and Recovery Act. This includes Notice of Construction (NOC) approval orders issued under Chapter 173-400 WAC, Title V Air Operating Permits under Chapter 173-401 WAC, and federal regulations in Code of federal Regulations Title 40 (40 CFR) Parts 60, 61, 63, and 264. We must follow the processes established by these laws and regulations, including

Commenter	Unit Group	Comment	Comment Response
		from the tanks farms and other areas that are involved in Hanford cleanup. Ecology should require that dangerous air pollution – which poses an acute risk to Hanford workers – should be monitored and regulated at the point of release from Hanford's facilities. Ecology should not rely on an air "mixing zone" to evaluate potential risks to Hanford's workers.	any boundaries and guiderails on our authority. Regulations go through required public participation. Their implementation is often directly shaped by judicial review by state and federal courts. For federal regulations, the United States Environmental Protection Agency (EPA) provides policy and guidance that must be followed or Ecology risks loss of program delegation or approval. The air quality regulations Ecology enforces don't address a "mixing zone." Ecology generally does establish air permitting limits and compliance evaluations at the emission unit or emission point itself. As an example, tank farms are subject to emission limits on criteria pollutants and toxic air pollutants under Notice of Construction (NOC) approval orders issued under Chapter 173-400 WAC. These emission limits apply to, and are evaluated at, the exhauster stacks. Samples are collected directly from the stacks and analyzed on a regular basis. Control devices, limits on exhauster flow rate, monitoring, and other requirements are also specified for the exhausters to ensure that actual emissions from the tanks remain less than the estimated emissions that were modeled for the NOC application. Modeling to demonstrate that emissions will not cause or contribute to a violation of an ambient air standard is one of the few areas where some form of setback does exist. This is because the definitions of ambient air in WAC 173-400-030(7) and 40 CFR 50.1(e) do not include the areas to which members of the public are precluded access. For more information on this, please see the most recent EPA guidance "Revised Policy on Exclusions from "Ambient Air"" issued December 2, 2019. EPA has very clearly established that permittees may exclude certain areas from ambient air modeling. This concept has been upheld in numerous court cases over decades and Ecology must continue to follow current regulations, policy, guidance, and case law. Other agencies have air-related oversight authority under different regulations which may not include consideration of ambient air in the same manner. Examples of this would be worker protection standards for federal employees retained by the federal Occupational Safety and Health Administration or authority for radioactive air emissions granted to the Washington Department of Health under the Nuclear Energy and Radiation Act. Comments related to those standards should be directed to the appropriate agencies because Ecology does not have the authority to implement them.

Commenter	Unit Group	Comment	Comment Response
Daniel Serres	General	V. The permit should ensure protection of the Hanford Reach The impact of the Permit is 'significant' because the Hanford Reach is an ecologically critical area that supports endangered salmon and steelhead. See 40 C.F.R. §§ 1508.27(b)(3) & (9). The Hanford Reach is the last free flowing, non-tidal stretch of the Columbia River. Presidential Proclamation establishing the Hanford Reach National Monument, Proc. 7319 (June 9, 2000). The Hanford Reach contains some of the most productive salmon spawning habitat in the Northwest, and approximately 80 percent of the upper Columbia's fall Chinook salmon spawn there. Id. Additionally, Endangered Upper-Columbia River Spring-run Chinook and Threatened Upper Columbia River Steelhead use the Hanford Reach adjacent to proposed cleanup actions. NMFS Decision maintaining Upper Columbia River Spring-run Chinook Endangered status, 70 Fed. Reg. 37160, 37163 (June 28, 2005); NMFS Decision Listing Upper Columbia River Steelhead as Threatened, 71 Fed. Reg. 834 (Jan. 5, 2006). The Hanford Reach is Critical Habitat for these listed species. NMFS Critical Habitat Designation for 12Evolutionarily Significant Units of West Coast Salmon and Steelhead, 70 Fed. Reg. 52630, 52733, 52760 (Sept. 2, 2005). The potential impacts of inadequate cleanup of the Hanford site on more than a thousand acres next to the Hanford Reach could range from nuclear contamination to increased stormwater discharge into the Columbia. Such impacts have a high potential to disrupt the unique ecological qualities of the Hanford Reach and harm endangered salmonids and their Critical Habitat. VI. DOE may be required to consult with NMFS regarding impacts to Threatened and Endangered Species and designated Critical Habitat. Riverkeeper encourages Ecology and DOE to begin fulfilling its consultation duties under the Endangered Species Act (ESA) early in the environmental review process. See ESA § 7(a)(2). As a first step, Ecology and DOE should ask the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) whether the proposed cleanup action protects threatened and endangered Columbia River salmon. Threatened or Endangered species or designated Critical Habitat may be present in the action area. 50 C.F.R. §§ 402.12(c) & (d). Ecology and DOE should bear in mind that the action area for ESA purposes is not limited to the proposed	The Endangered Species Act (ESA) requires federal agencies to ensure no listed species are adversely affected by remedial actions. As such, consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service is the sole responsibility of USDOE. We are informed this consultation does occur. Ecology, responding both as a regulator and as a natural resource trustee, provided technical comments on Columbia River Corridor Baseline Risk Assessment documents. We continue to work with other trustees to implement a Natural Resource Injury Assessment Plan. The Plan includes potential studies that will determine if critical habitat or species, such as Chinook salmon, have been injured from releases of hazardous substances. Overall, the results of the Plan will determine if cleanup activities in the river corridor have been sufficient to eliminate future potential injury to natural resources.

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		RCRA permit, or even to the larger buffer area Ecology and DOE propose to analyze.	
Daniel Serres	General	Just a couple things I want to add, and thank you again to the Department of Ecology for coming back to Portland and for following up on what you heard the first time around, which I know was a lot about offsite waste, a lot of new information has come out since then, and I think that what you're hearing from this group is a real desire to see some of those issues resolved. And I don't have a lot to add to what [?Devisia 38:56] and Gerry, and everyone else has said. But one thing I do want to throw in there is this idea that Department of Ecology has a responsibility under RCRA to uphold the line, and to set standard for how these waste facilities will be operated. And there's a difference between RCRA and [?SRCLA 39:21], and there's a difference between how DOE might deal with things later down the road and how Ecology would deal with these things up front. And so, I guess what we're asking from Riverkeeper is that Ecology not defer to DOE and get as much in the permit as you possibly can to hold the line. The second big thing I want to throw out there and I just didn't get a chance to say it in my opening comments was to regulate emissions from any of these facilities at the stack. I know that worker safety is a huge concern for ecology and for DOE; I think it's up to Ecology to hold, again, to hold the line there and to say we're not going to count on whatever comes out in terms of the vapor emissions from all these really dangerous waste sites. We're not going to count on the atmosphere, the wind to disperse that; to look at it right at the point of emission and to make sure that when it's coming out of the stack from any one of these facilities, including the [?TPA 40:28] or any of the tank farms, that that air emission	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group. Ecology evaluates and regulates air emissions under the Washington Clean Air Act (CAA), federal CAA, Washington's dangerous waste regulations, and the federal Resource Conservation and Recovery Act. This includes Notice of Construction (NOC) approval orders issued under Chapter 173-400 WAC, Title V Air Operating Permits under Chapter 173-401 WAC, and federal regulations in Code of federal Regulations Title 40 (40 CFR) Parts 60, 61, 63, and 264. We must follow the processes established by these laws and regulations, including any boundaries and guiderails on our authority. Regulations go through required public participation. Their implementation is often directly shaped by judicial review by state and federal courts. For federal regulations, the United States Environmental Protection Agency (EPA) provides policy and guidance that must be followed or Ecology risks loss of program delegation or approval. The air quality regulations Ecology enforces don't address a "mixing zone." Ecology generally does establish air permitting limits and compliance evaluations at the emission unit or emission point itself. As an example, tank farms are subject to emission limits on criteria pollutants and toxic air pollutants under Notice of

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		is not dangerous to workers and to anyone else who might be in the area in the future.	Construction (NOC) approval orders issued under Chapter 173-400 WAC. These emission limits apply to, and are evaluated at, the exhauster stacks. Samples are collected directly from the stacks and analyzed on a regular basis. Control devices, limits on exhauster flow rate, monitoring, and other requirements are also specified for the exhausters to ensure that actual emissions from the tanks remain less than the estimated emissions that were modeled for the NOC application. Modeling to demonstrate that emissions will not cause or contribute to a violation of an ambient air standard is one of the few areas where some form of setback does exist. This is because the definitions of ambient air in WAC 173-400-030(7) and 40 CFR 50.1(e) do not include the areas to which members of the public are precluded access. For more information on this, please see the most recent EPA guidance “Revised Policy on Exclusions from “Ambient Air”” issued December 2, 2019. EPA has very clearly established that permittees may exclude certain areas from ambient air modeling. This concept has been upheld in numerous court cases over decades and Ecology must continue to follow current regulations, policy, guidance, and case law. Other agencies have air-related oversight authority under different regulations which may not include consideration of ambient air in the same manner. Examples of this would be worker protection standards for federal employees retained by the federal Occupational Safety and Health Administration or authority for radioactive air emissions granted to the Washington Department of Health under the Nuclear Energy and Radiation Act. Comments related to those standards should be directed to the appropriate agencies because Ecology does not have the authority to implement them.

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Darryl Siemer	WTP	I certainly do agree that adding more sodium to Hanford's reprocessing waste is a dumb idea. However, I also feel that it makes no sense to leach aluminum (or anything else) from that garbage before vitrifying it. DOE-EM's infatuation with doing "separations" is based upon totally unrealistic technical assumptions & its willingness to make phony "promises" about where certain components of a local radwaste accumulation are going to end up (always in some other state). What would make much more sense is to deliberately homogenize (not separate) Hanford's waste, switch to a iron/aluminum-phosphate glass, and utilize a single process (& equipment) to convert everything to a common waste form. The amount of Al/FePO4 glass needed to accommodate all of Hanford's waste would fit into its already-paid-for underground, double shell, stainless steel waste tanks which would become its "super canisters". This country's taxpayers can no longer afford EM's boondoggling.	The Waste Treatment and Immobilization Plant is permitted to treat Hanford tank waste in a manner that produces vitrified waste, compliant with the Integrated Disposal Facility waste acceptance criteria. Ecology is committed to the treatment of Hanford tank waste in a manner that produces vitrified waste in compliance with the Integrated Disposal Facility acceptance criteria. The commitments in the Tri-Party Agreement and Consent Decree supports the dangerous waste requirements for the safe treatment and disposal of tank waste.

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Dave Bronson	General	Do not import new waste to the Hanford site	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Dave Bronson	General	Clean-up the 40 mile unlined trenches filled with radioactive waste ... covering with dirt is not acceptable.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Dave Bronson	CWC	Stop the leaks in and clean-up all the containers stored outside on gravel at the Central Waste Complex.	Outside Storage Area A no longer receives waste per the EPA CAFO and the Ecology Agreed Order. The dangerous waste management unit will be closed in accordance with the closure plan as required by WAC 173-303-610. This closure plan has been added to Rev 8c.

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Dave Bronson	CWC	Require the removal of thousands of untested waste drums at the Central Waste Complex.	Waste stored in CWC dangerous waste management units are designated according to WAC 173-303-070 through 170. The closure plan for the CWC operating unit group, including each dangerous waste management unit identifies closure requirements in accordance with WAC 173-303-610.
Dave Bronson	General	As residents of Hood River, Oregon, on the Columbia River, we are extremely concerned that the Hanford clean-up is proceeding so slowly. It is imperative that the Washington Department of Ecology immediately impose enforceable requirements on the U.S. government to expedite the required clean-up. Much is at stake for the entire Columbia River Basin. Please act before it is too late.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

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David Griffin	General	Hanford is already the most contaminated nuclear site in the United States, and despite the Tri-Party Agreement and the assurances of many a government official over several decades, the site never has been cleaned-up and decontaminated as originally promised. To fail to live-up to the earlier promises and then bring in even more radioactive waste would be a betrayal of monumental proportions.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
David Griffin	General	Hanford is sitting on a low-lying flood plain of the Columbia River, the second largest river in the United States, a flood plain composed mainly of loose, alluvial debris resulting from the Missoula Floods from thousands of years ago. During seismic events, this type of soil is highly unstable and subject to liquefaction	The historical siting for the nuclear reservation occurred based on the needs of the nuclear reactors, mainly water supply.

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David Griffin	General	The Hanford Reservation is among the worst possible locations on this planet for the long-term storage of radioactive waste, and the toxic by-products of the manufacture of nuclear weapons and fuel, and the reasons for this are quite easily stated. •It is already known that the Cascadia Subduction Zone undergoes a major slip and readjustment event every 300-350 years, with the last one occurring in 1700. The Northwest is currently due for a major seismic event, possibly as strong as 9.0 or more in which sustained rolling seismic waves will blanket the area for five minutes or more.	The historical siting for the nuclear reservation occurred based on the needs of the nuclear reactors, mainly water supply.
David Griffin	General	The U.S. Geological Survey has already discovered more extensive faulting in the underlying basalt of the region and is currently studying the situation, however their final report is not expected until August of 2013, eight months AFTER the Washington State Dept. of Ecology is to make their final determination on the DOE's proposal for Hanford.	The U. S. Geological Survey updated the coordinates for the Hanford Site.
David Griffin	General	The Hanford Reservation is among the worst possible locations on this planet for the long-term storage of radioactive waste, and the toxic by-products of the manufacture of nuclear weapons and fuel, and the reasons for this are quite easily stated. •The Columbia River, crucial to salmon spawning and many other types of fish, birds, and aquatic mammals, also dumps right into the Pacific Ocean where the Northern Pacific currents split the outflow, circulating part of it up across Canadian shores into Alaskan waters, prime Pacific fishing grounds, with the lower portion flowing down along the California coast towards Mexico, and then westward across the Pacific. Anything contaminating the Columbia is also contaminating a much, much larger area of the planet.	The historical siting for the nuclear reservation occurred based on the needs of the nuclear reactors, mainly water supply.

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David Griffin	General	I've got a couple of points to make. Number one, I understand the position that you guys are in. I know you guys are between a rock and a hard place. On the one side, you've got all of us, the pissed off citizenry, and on the other side, you've got pressure coming down from the federal level. I understand that. You guys are in a difficult spot. But, you guys are the gatekeepers. It's up to you guys to stand up and to do the right thing despite the pressure. So, generations are going to be affected by what you guys do or don't do. The other thing is, some of the stuff that's leaked into the ground up there, Iodine-129, has a half-life of 15.7 million years. Now, what's going to happen at Hanford in 10 or 15 years when the federal government goes bankrupt? What's going to happen? How many generations are going to be affected? The final point I want to make is that back on April 19th, I contacted all five of the local television stations here in Portland, and all five of them refused to cover this. I contacted them several times. I sent them emails, I even went there in person, hand-delivered flyers to each one of their offices, and I was ignored. Unidentified Speaker: Same for the Tri-City Herald. David Griffin: So, that's one of the reasons people have not heard about this, because there's a media blackout that I encounter.	Our Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. We are striving to ensure the public is adequately informed about the current Rev. 9A public comment period and Hanford Site cleanup. This includes email notices, mailers, media outreach, both newspaper and digital ads, social media. We are also holding several public informational meetings and public hearings. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

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David Griffin	General	This being the final day to submit written comments on the DOE's plan to make Hanford the new National Nuclear Waste Dump, I wanted to once again, urge all of you to stand up and fulfill your duty of protecting the environment, the people of the Northwest, and the people of the planet. The Hanford Reservation is among the worst possible locations on this planet for the long-term storage of radioactive waste, and the toxic by-products of the manufacture of nuclear weapons and fuel, and the reasons for this are quite easily stated. Hanford is already the most contaminated nuclear site in the United States, and despite the Tri-Party Agreement and the assurances of many a government official over several decades, the site never has been cleaned-up and decontaminated as originally promised. To fail to live-up to the earlier promises and then bring in even more radioactive waste would be a betrayal of monumental proportions. Hanford is sitting on a low-lying flood plain of the Columbia River, the second largest river in the United States, a flood plain composed mainly of loose, alluvial debris resulting from the Missoula Floods from thousands of years ago. During seismic events, this type of soil is highly unstable and subject to liquefaction. It is already known that the Cascadia Subduction Zone undergoes a major slip and readjustment event every 300-350 years, with the last one occurring in 1700. The Northwest is currently due for a major seismic event, possibly as strong as 9.0 or more in which sustained rolling seismic waves will blanket the area for five minutes or more. The U.S. Geological Survey has already discovered more extensive faulting in the underlying basalt of the region and is currently studying the situation, however their final report is not expected until August of 2013, eight months AFTER the Washington State Dept. of Ecology is to make their final determination on the DOE's proposal for Hanford. The Columbia River, crucial to salmon spawning and many other types of fish, birds, and aquatic mammals, also dumps right into the Pacific Ocean where the Northern Pacific currents split the outflow, circulating part of it	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. If there was an emergency event at the Hanford Site, Attachment 4, the "Hanford Emergency Management Plan" outlines the Permittees' response to ensure protective measures are in place. In addition, each unit group has a Contingency Plan to respond to events specific to the facility.

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		up across Canadian shores into Alaskan waters, prime Pacific fishing grounds, with the lower portion flowing down along the California coast towards Mexico, and then westward across the Pacific. Anything contaminating the Columbia is also contaminating a much, much larger area of the planet. Although there are more, the reasons listed above should be more than enough for you to reject the U.S. Department of Energy's "proposal" to make Hanford the new National Nuclear Waste Dump. It should be quite clear to the average person that this site is very geologically unstable, and is completely unsafe for the long-term storage of radioactive waste which will remain radioactive for many hundreds of thousands of years; and it is also situated in a very ecologically sensitive and critical area as well. That being said however, those back in D.C. have a very serious problem they are trying to find a "solution" for - the ever-increasing amounts of deadly radioactive waste. It continues, day after day, to pile-up with no long-term plan for its adequate disposal, and therein lays the REAL problem. Obama's FY 2012 budget request which designated over $7.6 billion to programs directly related to nuclear warheads, an increase of 8.9% from the previous year; a new facility at Botts Road in Kansas City MO due to be opened soon, continued upgrades at Y-12 in Oak Ridge TN, and continuing plans to build a new $6 billion state-of-the art facility at Los Alamos are all signs of the tremendous influence the Military Industrial Complex has on the federal government; and meanwhile the U.S. media is filled with political rhetoric, war propaganda, and finger-pointing at Iran, so it's the same old story of "Don't do as we do, do as we say." While they may argue that they are keeping all the rest of us "safe", the sad truth is that that they are actually making this planet a more dangerous and hostile place to be, and are in fact creating enemies in order to justify and support their wars. Unfortunately, many of those in the D.C. area have proven time and again,	

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		that they are either unwilling or unable to restrain their own destructive impulses and will all likelihood continue to act according to those dictates until they are finally prevented from doing so by others. Justice is the rightful action of the group to prevent further harm against itself by those within or without who time and again, and despite all admonitions and warnings to stop, continue to cause harm. The needs and wants of the Military Industrial Complex do not align with, nor do they outweigh or trump the needs and wants of the other seven billion people on this planet. I was present at the public meeting in Portland on the 16th of May, 2012, and I saw firsthand how many people showed up wanting to go on the record against this proposal including myself. I also witnessed first-hand and documented how all five of the local television stations in Portland in-concert refused to report on this meeting beforehand in order to minimize public turnout at that meeting. I am quite sure they all were merely doing as they were told and "following orders". Those in D.C. expect you also to acquiesce to their "proposal", to sheepishly do as you are requested, and to slavishly bow-down and submit to what they want, and I believe I have a pretty good grasp of the type and amount of pressure you are under to do so. However there will come a point in time, despite the most earnest efforts of counterintelligence to prevent it, when people en-masse will find out the truth, and they will look upon this moment as a watershed, be it either the point at which brave people stood up and said "Enough!", or the point at which those destroying the planet and everyone on it were given the green light to go ahead and continue with business as usual.	

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David Kerr	General	I am writing to comment on the Hanford cleanup and the DOE plans to continue shipping radioactive waste for disposal at Hanford. It is unconscionable that you would consider adding more radioactive waste to an already overloaded facility. Just because Hanford became the default waste dump many years ago does not give DOE the right to totally ignore the wishes of Washington State residents and continue dumping this waste. The goal SHOULD be to clean up the existing mess first. I understand that this is a daunting task, with many false starts and errors along the way so far. Inventing and putting into practice new technology are what scientists and engineers do for a living. We're talking about tons of radioactive waste, some of it high energy gamma emitters with long half lives. Stop the deliveries until it's cleaned up.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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David Mac	LLBG Trenches 31/34/94	So, under SEPA, the Department of Ecology will look and see what Energy is proposing to do and they will look at what they're doing and then make a determination of non-significance, or of significance and say that it needs to be mitigated, or they will say this is a significant adverse impact and EIS is required. Now, for the current portion, they've decided that this is non-significant, so no EIS is required, and they have look at each unit on its own. I don't understand even if Ecology thinks that they can do that, I don't understand why you wouldn't look at it as one since it's all leaking to the same place anyway. And so there are 37 units, including 2 units which address areas that have already leaked, and 4 units which have received a determination of significance, but that doesn't matter because they won't be touched for the next 10 years. There is one unit that is in high quality habitat and a plan for that doesn't need to be given until 180 days before they will start working on that, so we don't know what that is and no one else does, either, at this point. Trenches 31 and 34 are both required for mitigation, but there's no clear plan as to what exactly that will look like. And then, the central waste complex also, things are stored improperly, there have been confirmed releases and no plan is required until 30 days after the permit. So, I don't know what that looks like and no one else does, either. So, the purpose of review here is to help Washington make an informed decision about what action to take, and when things are being listed as mitigated before the plant has actually been seen, it just makes it hard to think that that's actually happening.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
David Ortman	General	I have three short comments. One, if you're going to have a 7:00 o'clock public hearing start the public hearing at 7:00 o'clock, not the agency talking. Secondly, Ecology's Public Involvement Calendar website did list the public hearing, but when you clicked on Draft Hanford Site Dangerous Waste Permit, you get the famous Error 404 Sorry Page Not Found on their website. Not helpful for public involvement. Third, the governor is fond of telling people to step up to the plate. The governor must not be familiar with baseball or softball, you don't get to hit by standing at the plate, you don't hit a homerun by standing at the plate, and you surely are not going to get on base if you left your bat in the dugout. For the last eight years, when it comes to Hanford cleanup, the governor has stepped up to the plate without a bat. The current Hanford Site Dangerous Waste permit expired in 2004 before the governor took office, it will not be reissued until 2013, maybe, well after the governor leaves office, and leaves office with a sad and sorry Hanford record of no hits, no runs, and lots of errors.	We value meaningful public involvement. With this in mind for the upcoming draft Rev 9A permit renewal comment period, we are going to have multiple meetings, both informational and public hearings. This information will also be advertised and shared with the media. The meetings will be offered in two different formats, online and in-person. Additionally, we are going to be sending several advance notices to allow the public plenty of planning time for attendance or involvement. We strive to make sure that our website is up to date and accessible at all times. We will frequently verify the links are active during the comment period. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.
David Ortman	General	Ecology says [inaudible 22:15] controls hazardous waste from cradle to grave, which is about what we have here. There's not enough time to make comments, but I'll support Heart of America Northwest concerns and Hanford Challenges expressed here tonight. I did notice, however, that there was a comment earlier about earthquakes at [Yucca 22:32] Mountain, and that does raise the question of what impacts would a major Eastern Washington earthquake have on the 300 area process trenches that are close to the Columbia River.	Hazards are analyzed and described in Attachment 4, "Hanford Emergency Management Plan," each unit group Addenda F, "Preparedness and Prevention," and each unit group Addenda J, "Contingency Plan". These documents identify the hazards that could be encountered, and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
David Read	General	5/11/12 Dear Ms. Prignano: Having received a letter from "Heart of America Northwest", I ask you to do everything in your power to require that the federal Energy Department abide by the Federal (and WA state) hazardous-waste laws. The permit for waste containment is now open for public review, but I am unable to appear at the hearings. I must depend on you to take action on my behalf. Sincerely, David H. Read, Ph.D.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Debi Willison	General	PLEASE DO NOT DUMP ANY MORE WASTE AT HANFORD.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Deborah Kapfer	General	While I think it is wonderful that the waste stored at Hanford is being cleaned up I do think it would be a mistake to transport radioactive materials from around the country to Hanford. I am not saying that everything possible would be done to insure that the waste travels in a safe manner. I am raising the issue that there is no way to monitor those on the road or unexpected emergencies. We would be playing Russian roulette with every town that happened to be along the way.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Denmark Wiches	General	Well, I second everything that was said up to this point and probably everything that's going to be said after me. Just the size of this group indicates that more hearings are required. Just the size -- the fact that that people have been sitting here for hours and still have something to say indicates that more hearings are necessary. Does anybody believe that the federal government knows what it's doing? In foreign policy, in banking, in whatever. Why suddenly is the Department of Energy an expert? I say that you should proceed as if the federal government and the DOE does not know what it's doing. That's the premise you should be following. Here in the northwest, we have cultivated a way of life that's very special and we are under assault by many things. How about genetically modified food? How about drones in police hands? How about wars that we didn't ask for? How about coal trains to coal terminals? I'm working with Beyond Coal in Vancouver. How many assaults to the people have to take? How many fronts do we have to work on and fight on? How many fronts can we possibly tolerate? Well, here's yet another front. And I'm asking you to fight. In Washington we have on the ballot this coming November marijuana legalization because that's another front for us to fight. Some people came up to me and said, well, the federal government won't approve if Washington voters agree with legalization. My response was so what? I'm ready for a fight. Draw some lines in the sand, damn it, throw the gauntlet on the ground, clench your fists, grit your teeth, yell some. Isn't it clear that DOE has made this mess? If a patient is sick in a room with a compromised immune system with a bacterial infection, does it make sense to bring in more bacteria to that person? Hanford is a sick person with a compromised immune system. It makes no sense to bring in more of what made it sick in the first place. Not a single isotope more should cross Oregon's or Washington's border. Not one more isotope.	Public comment periods are your opportunities to comment on Hanford cleanup. We review and respond to every comment we receive. The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. The public comment period focused on the renewal of the dangerous waste permit, the Hanford Site-wide Permit, Rev. 9. Our Rev 9A Permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Deven Murti	General	I just wanted to say that the incremental approach, slow and cautious, to the cleanup is not enough. This Hanford nuclear reservation was the site of a Manhattan project and many more resources were put to make a quick, solvent -- create a nuclear bomb. And with the same gravity now, we need to do cleanup considering the gravity of the situation and the key opportunity we have now to prevent the incredible spreading of risk that will occur if it goes beyond the Hanford nuclear reservation -- the polluted reservation and goes out into the river and beyond. So, that's a summary, just to say we need to -- okay, yeah, the idea is make Hanford, considering that it's the biggest site for pollution in the U.S. and what, make it the key resource that other radioactive waste sites around the nation can take our technology, can take the energy for their cleanups instead of us just taking all the pollution and incrementally storing it with the idea of a 40-year timeline for a cleanup. So, that's a clarity about our priorities and how we need to shift to solving this problem.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup.

Commenter	Unit Group	Comment	Comment Response
Dirk Dunning	SST	And actually it's Sam Thomas, a completely transparent pseudonym, just to make clear that I'm making comment entirely as a private citizen. In the fact sheet, one of the things that you notice, there is no practical alternative to the continued storage of waste in these tanks for the next several decades. That actually isn't true; there are at least two alternatives to that. One of which was raised earlier in the question and answer. In the 35 years that I've worked in industry as a chemical and nuclear engineer, particularly on the Hanford site, I have seen a lot of problems over the years that have gone unaddressed. In the case of the single-shelled tanks, they began leaking within the first two years of tanks being placed in the ground in 1942. So, they've been leaking upwards of seven decades now in some cases. The law requires, which became effective as of the Federal Facility Compliance Act, that those tanks be emptied within 180 days, which, as Ecology noted, is not something they can practically do. However, there are alternatives to that. And I would suggest that the State of Washington should encourage through permit conditions that the tanks either be emptied as expeditiously as possible into new double-shell tanks, or that as was demonstrated over 15 years ago, that freeze barriers be placed underneath all of the leaking tank farms and the ground frozen solid pending the exhumation of the tank farms in their entirety, and that the exhumation of the tank farms following the retrieval of the waste is technically practical, as well as all of their interconnected RCRA-regulated piping, all of which should be 100% removed from the ground, as well as exhumation of the vast majority of the contaminated soil into the tanks, which in the terms of the Resource Conservation Recovery Act and the Washington equivalent thereof, is a facility which extends to wherever the dangerous waste comes to reside. That includes all the way to ground water and beyond. Today there are ground water plumes of radioactive materials covering upwards of 80 or 90 square miles of the site. There are dangerous waste plumes that extend over a smaller portion of the site, particularly carbon tetrachloride, but also chromium and other things. All of these should be addressed as part of the permit as noncompliant facilities that should not be permitted to continue in noncompliance.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule. As for the plumes, they have been greatly reduced over the last ten years with the help of the Pump and Treat system.

Commenter	Unit Group	Comment	Comment Response
Don Gallagher	General	Washington residents deserve and demand complete transparency about: I. The current status of waste disposal procedures at Hanford, including all the competing scientific conclusions about the permanent safety that will result from current procedures. Since the threat is eternal, cost- and corner-cutting compromises are unacceptable.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Don Gallagher	General	The cost of implementing the very safest procedures will, of course, be enormous. So that the citizens of Washington and the rest of the U.S. will accept this great cost, we need to understand clearly and specifically the unique and dire threat posed by radioactive waste. To accomplish this, the State of Washington should finance and sponsor a video documentary that shows in complete graphic detail the past, current and proposed practices at Hanford.	A variety of video documentary resources are already available for the Hanford Site. Hanford has a technically complex set of past, current and proposed practices that are hard to put into a short documentary. The series "the Hanford Story" breaks into pieces the past, current, and future. That and other videos can be found at www.hanford.gov. Also, Ecology sponsors the Hanford Communities to prepare 2-3 videos per year on current issues. The Hanford story builds new chapters as cleanup continues, so Ecology will continue working with the U.S. Department of Energy and others to add to Hanford video resources.
Don Gallagher	General	There must be accountability for past reckless practices-for example, by corporate contractors and politicians who are responsible for knowingly implementing these reckless practices. Those responsible should bear a proportionate share of the enormous costs of addressing the problem.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Doris Dreyfuss	General	I oppose the Dept. of Ecology's issuance of a draft permit to bring more dangerous waste to Hanford. The waste already there has not been dealt with successfully.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Doris Dreyfuss	General	There is also the danger of transporting mixed waste to the site. At a bare minimum, the wastes already at Hanford must be cleaned up before considering additional radioactive and/or mixed wastes.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Doris Dreyfuss	General	I oppose the Department of Ecology's issuance of a draft permit to bring more dangerous waste to Hanford. The waste already there has not been dealt with successfully. There is also the danger of transporting mixed wastes to the site. At a bare minimum, the waste already at Hanford needs to be cleaned up before considering additional radioactive and/or mixed waste. NOx fuel use is another major concern. Can Energy Northwest be ignoring the disaster of Fukushima Reactor 3? Nuclear fuel is dangerous enough. Please don't increase the risk.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Doris Ferm	SST	Please do not allow any radioactive or toxic liquids to remain in single shell tanks. Replace those that are leaking and remove all contaminated soil.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Doris Fulton	General	But you can help me by adding language to your permit that says that no new offsite waste will be added to the landfill at Hanford. We do not want to become the nation's nuclear waste dump! ... Hanford should be cleaned up and new waste should not permitted.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Doris Fulton	General	Moreover, the transfer of nuclear waste in trucks through downtown Portland and Spokane will expose hundreds of people to a fatal cancer.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. Following is information that addresses some concerns. Background Information on Transportation of Radioactive Waste The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. NRC sets design and performance standards for containers that carry radioactive materials. NRC also establishes safeguard and security regulations to minimize the possibility of theft, diversion, or a terrorist attack on shipments. DOT regulations require carriers of radioactive shipments to use “preferred routing,” which takes into consideration such factors as: accident rate, transit time, population density, activities, time of day, and day of week. The safety record for shipping radioactive materials is remarkable. For example, there have been more than 11,000 shipments of radioactive waste to a disposal site in New Mexico, and more than 13 million miles traveled without a single reportable incident. Concerns Regarding Additional Exposure to Radioactive Materials According to the National Council on Radiation Protection and Measurements, the average person receives around 360 millirem annually from natural and manmade sources of radiation. A millirem is a unit of absorbed radiation dose. People living less that a 100 feet from a transport route and exposed to a vehicle containing the highest level or greatest quantity of radioactive materials would receive 0.0005 millirem per shipment.

Commenter	Unit Group	Comment	Comment Response
Doris Fulton	General	The nuclear waste must not be merely covered with dirt but the waste must be identified and removed. In addition, all contaminated soil must also be removed.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Doris Fulton	General	All 40 miles of trenches which hold nuclear waste must be monitored, identified, removed and treated.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Doris Fulton	General	Groundwater monitoring must be required to insure the safety of the children of Washington State.	Ecology worked with the Permittees on the requirements for Groundwater Monitoring for those unit groups that require Groundwater Monitoring Plans under WAC 173-303-645. In addition, II.F permit conditions, "Groundwater and Vadose Zone Monitoring and Corrective Action for Regulated Units" and Attachment 8, "Inspection and Training Plan for Groundwater Monitoring Wells" provide regulatory requirements for groundwater on the Hanford Site. The most current information is provided in Addendum D, "Groundwater Monitoring Plan" for applicable unit groups.

Commenter	Unit Group	Comment	Comment Response
Dorothy Lamb	General	Dear Ron Skinnarland, I request that you consider issuing the SEPA nonsignificant determination only after determining whether there will be significant impacts at the site especially re tank leaks in the central plateau. And clean up the waste at Hanford much deeper than you have suggested and insure that it will never get into the Columbia River. Nuclear waste is dangerous and unnecessary. See www.newenergymovement.org	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Dorothy Lamb	General	Hanford is not a good place to store radioactive waste. The river is there. The Columbia Gorge, Portland and Vancouver and into the ocean. It's dangerous. It causes cancer. It needs to be put in a safer place. Clean it up, but any additional somewhere else, and don't make any more. I'd also like to request that the agreements are kept that have been made. I'm a downwinder from the thyroid belt. Had thyroid problems since I was four years old. I don't want to be a downstreamer, which would cause cancer. I don't want there to be a cancer belt. Let's take care of our planet. It's our home.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Dorothy Lamb	General	I'm a downwinder. That means I was in Milton-Freewater, Oregon when they first started Hanford back in the early '40s. I was about four years old or something, and it's called the Thyroid Belt because the wind blew in from the ocean along the Columbia Gorge and further on to Milton-Freewater, etc. Even the cows there were having symptoms. And now, I'm worried about Hanford, it leaking into the river and bringing more, and more, and more. Washington is the one that -- Hanford is in Washington, but Portland is the one that really suffers. Perhaps that's why; perhaps Washington doesn't want to make sacrifices when it's not within Washington State. I don't quite understand that, but there's a lot I don't understand. Last time we had politicians come and testify, but still, they're wanting to do this. I agree that we can't wait. Nuclear waste is dangerous. Please don't put it in unlined trenches. Please don't have any offsite waste there, and don't bring in the leaking tanks. Don't create more nuclear waste, there's lots of other ways to get energy. I keep asking myself why is this happening? Maybe it's politics, maybe it's campaign financing. I don't understand it, I really don't. There's so many better alternatives. Please don't reissue the permit.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Dorothy Wettemberger	General	what are the factors that Ecology believes have led to the length of time required to draft the permit. What actions does Ecology believe may be necessary or appropriate to help ensure that future permitting activities are completed in a timelier manner?	In 2004, the Permittees' provided a permit application for renewal and Ecology provided a Completeness Determination. Although the submittal still had additional work to complete, Ecology worked with the Permittees to prepare the permit renewal for public review. Although we don't have specific reasons on record as to why it took time to complete the draft permit for public review, we can assume that it took time to work through issues and Ecology comments in the technical review of the permit application. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Dorothy Wettemberger	General	to what extent does Ecology feel that the time and resources that have been expended in drafting this permit have detracted from Ecology's ability to oversee waste management activities that are, or should be subject to the permit. Are there any instances where delays in issuance of this permit have led or contributed to any adverse impacts to the environment, workers, or the public?	Ecology has always made the regulatory oversight of Hanford cleanup progress its top priority. While the permit renewal was prepared for the public comment period, Ecology was actively managing the Hanford Site-wide Permit, Rev. 8C. While permit modifications and new unit group permit applications may have contributed to the length of time to prepare for the permit renewal, Ecology did not stop regulatory oversight of Hanford. The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations and is protective of human health and the environment for generations to come.
Dorothy Wettemberger	General	does Ecology have any estimates of the costs associated with the permit development process, including both Ecology resources and those of the permit applicants? Have these costs had any adverse impact on Ecology's ability to effectively oversee waste management activities at Hanford, or the ability of the Department of Energy and their contractors to safely manage wastes or otherwise meet their compliance obligations under the dangerous waste program or the Tri-Party Agreement?	The dangerous waste regulations and Tri-Party Agreement requires USDOE to apply for permits to manage dangerous waste and dangerous waste components of mixed waste. The preparation of the draft permit renewal included the efforts of Ecology staff, the USDOE and its contractors from 2004 (when the permit application was submitted to Ecology and Ecology sent a completeness determination to USDOE) to the transmittal of the Hanford Site-wide Permit, Rev. 9 renewal in 2012. We do not have a detailed total cost estimate for this work.

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Dorothy Wettemberger	General	As a down-winder resident of Eastern Washington with multiple generations of family members that have been affected by Hanford operations, I am acutely aware of the need for Ecology to ensure that cleanup and waste management activities at Hanford are conducted in a safe and effective manner. I am very concerned that the delays in re-issuing the Hanford Dangerous Waste permit, and the potential that effective safeguards have not been in place during the permit development process, may adversely impact my family's health and welfare for generations to come. I welcome Ecology's responses to my questions.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. For more information on the history of the development of the Hanford Site-wide Permit, Rev. 9A renewal, please see the Rev. 9A Fact Sheet. The current Hanford Site-wide Permit, Rev. 8C has 22 unit groups in which dangerous waste is regulated under final status. For more information, visit the Ecology website at https://fortress.wa.gov/ecy/nwp/permitting/hdwp/rev/8c/index.html.
Dr. Edward Siegel	General	PhD, Michigan State, metallurgy, 1970; Masters Nuclear Physics, Michigan, 1969; PhD, nuclear physics , 1968; Masters of Mathematical Physics, New York University [inaudible 2:05] 1967; Bachelors Degree CCNY 1965; attended Colorado School of Mines, and I have a law degree from [?Penn and 2:13] Princeton. This is a standard book called the Structural and Properties of Metals and Alloys by Brick Gordon Philips, it's an undergraduate textbook. There's a chapter on stainless steels. I've said some of that before. Let me read some letters from General Electric and Westinghouse. General Electric Company, 175 [?Crickner] Avenue, San Jose, California. I think it's December 31st, 1977. To Edward Siegel, International Atomic Energy Agency, 11 [inaudible] Vienna, Austria. Dear Dr. Siegel, and it's partially cut off, but the seven international [inaudible 2:46] third international conference [inaudible] held in Vienna, Austria, September [inaudible], one of our associates, Howard [?Stolens 2:52] had a brief discussion with you. One of the topics discussed with [inaudible] 182 Welds. Mr. Stolen's -- it's hard to read, it's cut off -- forwarded the information that stressed corrosion and cracking had been observed in [inaudible] -- it's in code, [inaudible] 182 Welds, which was attributed to embrittlement by carbine precipitates. Sidebar, that's called -- these are synonyms. Sensitization it doesn't mean sitting around a campfire signing Kumbayah. It's a synonym for S-H-I-T. The alloys break, just like Ridges potato chips. It's also called -- physicists	The U.S. Department of Energy is the federal agency responsible for Hanford and its cleanup. Ecology partners with the U.S. Environmental Protection Agency, as regulators, to make sure that Energy's deadlines are met as outlined in the Tri-Party Agreement. The Ecology Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

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		call it spino [inaudible 3:27] decomposition, John Cahn, University of Washington, just won the Kyoto Prize for his theoretical work in it in the '60s, just came back with a million dollars from Japan last November. They're real interested in Japan because that's why the reactors failed. They break easily. There's no reason to have anything brittle in a nuclear reactor or a jet engine or anything else. [Inaudible] machining with it. To continue. End of sidebar. Mr. Stolen's -- [inaudible 3:52] cover for this [inaudible], in welds between stainless and carbon steel, that's called a transition weld, could you please provide me with a copy of your report on the subject [inaudible] report, please provide [inaudible] materials [inaudible] product formed, fabrication histories forming, heat treatment, operating histories, time to failure, temperature environment, applied stress [inaudible 4:09] crack locations. Signed by Michael E Sauby, Supervisor Component Behavior Analysis. The second letter's more exciting. May 3rd, 1983 to me at 415 Seventh Avenue, San Francisco, from Theodor Stern, Executive Vice President, Westinghouse Nuclear nonmilitary. Westinghouse -- a lot of this is just boilerplate. Westinghouse recognizes that weld metal deposited with [inaudible 4:38] welding electrodes may undergo magnetic transformation from paramagnetic to [?paramagnetic 4:43] at high temperature [inaudible]. I'll get to a paper I wrote about this which is kind of infamous. Within the corporation, we have the [inaudible], blah, blah, blah, blah. However, the data cited above indicates that there is no appreciable deregulation degradation of mechanical properties after 40 hours at 1150 Fahrenheit. I label this a moron because if you build a reactor once a week, I guess 40 hours doesn't matter. He probably met 40 years. This is the executive vice president of Westinghouse Nuclear for 30 years, he's still alive, I just spoke to him a week ago, signed this. This is like signing the fact that you're a soviet agent.	

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		All right. Now, the metallurgy, which is very simple. This is a paper I wrote. I'll give you the reference. It's Journal of Magnetism and Magnetic Materials, Volume 7, pg 312, 1978. There's an article about [inaudible 5:36] in the Village Voice, page 38, 8-12-78, called If Leaks Could Kill. In this paper, which is a bit technical, but the first page, you can find it online, go to Flickr.com, no E in it, and put in giant hyphen, M-a-g-n-e-t-o-r-e-s-i-s-t-a-n-c-e. Look for page 312 and you'll see some schmuck, I used to think [inaudible 5:58] titanium to it. That's what screws it up. It's like adding the wrong amount of oregano to lasagna recipe. That's probably soviet sabotage. This alloy replaced [NCOA 6:08], which was just fine for transition welds since 1912. Putting this stuff in NCOA to make it NCO182, which is in every weld in the world since about the 1950s is like your boyfriend putting sand in the gas tank of some guy's car who's taking you out for the evening. You're not going to get too far. It won't be an evening of romance. You'll be stuck on a road freezing to death because the engine will seize. It's sabotage. [?Aziese Ak Bahani 6:34], former CEO of [inaudible] International, PhDs from NYT, about [inaudible] which is worse than this, jet engine, says it's almost as if they wanted them to fail. Last year, there are definitive articles about these alloys failing in the aviation [inaudible] space technology, September 1981 in the New York Times, the second week in September 1981, about jet engine explosions in Milwaukie, Manchester, and [inaudible] in Japan. So, to conclude, it was purposeful fraud by Westinghouse and General Electric. DOE knows all about this. I've been arrested many times. I was fired by Westinghouse in '74, PSE Energy in '76, the IAA in '77, and ABB in the '80s. I rest my case because this is in the scientific literature. These are refereed papers, and in fact, the director of the National Science Foundation, Suresh, is a metallurgist. He was the referee on this.	

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Drija Bertish	WTP	We support fully the comments of Columbia Riverkeeper, Heart of America Northwest, Hanford Watch, the Sierra Club, and all the other conservation organization. Rosemere is a conservation organization. We want to reiterate the plea to refrain -- make sure that there is language introduced into the permit to cease and desist from all additional wastes from being imported into Hanford. I have a problem with the vitrification plan and how this ties into everything. I have this funny feeling that the federal government, having spent billions and billions of dollars now thinks that they own it, when it was given to us as a cleanup tool, and that because they've spent all this money, that they think they can then use it turn around and start treating waste from elsewhere. That's not what it was proposed for. And I think that we need to stand up as a state, I know Washington State is very green conscious and this goes against the very fiber of the being of all the citizens of our state as we voted several years ago on, so we would ask that the most important thing to do is to stop quibbling about everybody else's mess, and to focus more on getting those tanks emptied, all the ones that are leaking and getting into the river now, and get them -- build new tanks if need be that are double-lined rather than single lined. Don't wait 40 years to empty the tanks. Vitrify what we can. If don't vitrify --- I don't think the vitrification plan is going to work because it's behind and off schedule and it's over -- it's going to explode, basically, what we've been told. That they can't get it to work and there's going to be this deep, dark recess of hole in the middle of it that no black hole could every protect us from. So, it's a very dangerous proposition. We don't know what we're doing. Ecology and Department of Energy has said for years this is where no man has ever gone before. So let us, instead of trying to make miracles and promises we cannot keep, build something immediately to secure what's already there and focus the permit on that rather than wasting time and money on things that will not work. I think it's also important that the people have spoken, that we don't want truckloads of waste coming through neighborhoods and cities. We need to get all of the drums offsite that are being stored illegally. We need to get them secured. We need to stop using trenches, no more landfills. I mean,	Ecology agrees that the timely cleanup of the Hanford Site is a priority. We do not want to delay the operation of the WTP Facility and want to ensure the tanks are emptied and are processed through vitrification into a more stable glass form. Regarding your concerns about waste being transported and stored onto the Hanford Site, under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). The WTP Facility has been constructed and permitted to treat and dispose of waste from onsite facilities. Ecology has not approved permit language in the WTP Permit to include the importation and treatment of waste from offsite facilities. Under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE or DOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). In preparation for the revised renewal, Ecology and USDOE were in disagreement on this issue. Ecology agreed to remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE. Ecology will proceed with including unit specific conditions for CWC, 325 HWTU, T-Plant, IDF or LLBG in the revised Hanford Site-wide Permit renewal. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. The following template permit condition language is proposed to be included in the current Revision 9 Hanford Site-Wide Permit: The [Unit Group Name] [Unit Group Type] Unit Group is located in the [Hanford Site Location] of the Hanford Site. The [Unit Group Name] Unit Group provides treatment, storage, or disposal of dangerous waste and/or mixed waste (MW) generated on the Hanford Facility [or other Unit Group description of waste treatment, storage or disposal activities] and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and

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		the voices are pretty clear and consensus in this room. And I think it's time -- we've asked -- I feel like a broken record. I've been to so many of these meetings and we've said over and over again, "No more waste. Please, we beg of you," and now it's time for you to say the full authority of the State of Washington under the Attorney General will say no more to this, and if not, we'll sue the federal government and make a big stink. That's where it's at right now. Let us stop with all the rest of this. It's quibbling. Grow a spine and don't provide any more deference to the Department of Energy and to the federal government. It's coming to that. We have no other choice. So say no, and be done with it.	exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Permittees may manage the following wastes as described in the Waste Analysis Plan which are approved for [treatment, storage or disposal] at the [Unit Group Name] Unit Group: dangerous and/or mixed waste that is generated from processes at the Hanford Facility and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Changes to the wastes authorized for management at [Unit Group Name] Unit Group may be authorized via a permit modification decision pursuant to Permit Condition I.C.3. Requests for permit modifications must be accompanied by an analysis adequate for Ecology to comply with SEPA.

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Drija Bertish	SST	One of the fellows from Ecology -- I'm bad with names, sorry -- stated that the sole mission of the vitrification plant was to treat Hanford waste only. I have asked about this in public meetings over the past five years, I think, and nobody's ever said that before. So, I'm glad to hear that. And I would really like that succinct statement to be added to the permit. That this is only for Hanford waste from the tanks, period. Nothing else goes in there. It's never been stated that clearly before. So, that's missing. Also, over the past several years, I've attended various meetings and over and over and over again, it comes up from various parties that they feel that the permit is vague and that this year 2022 opens it up for all this waste to come flooding into Hanford and we've heard over and over again Ecology say that that's not true. So, there's obviously a misperception from one side or the other, and I think that that would make everybody really happy so that we could quit discussing this once and for all is just to say it in the permit that, "It's banned. We don't want it here," rather than relying on outside documents, put it all in one and say very clearly and succinctly that we don't want any outside waste at Hanford. So, if we've got already a long-term storage problem and we've got it in trenches and we've got burial mounds and things that are unlined and all of that, we need to really focus on what's already in front of us rather than thinking we've got some safety mechanism at 40 years down the future. I think the governor even came out and said that they were -- she was unhappy -- the governor and the attorney general recently wrote a letter saying that DOE was reneging on its deadlines and this is another reason why we can't continue to wait for the vit plant. I think that the permit needs to show some good faith and commitment that we need to transfer and drain what's there now and have a Plan B, as other people have mentioned this evening. I agree with the lady who said that we need to up the penalties, $10,000 a day is not enough to elicit change.	The single-shell tanks are not currently active and are considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. Part of the System Plan is to install a new DST to help with the retrieval and move waste to the Vitrification Plant. The Rev 9A Permit will be revised if needed to support a final System Plan.

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Drija Bertish	WTP	A thought came up when we were discussing the vit plant just tonight, these are glass logs, and I know we've discussed in open meetings about Hanford before, that it's a high earthquake risk area, higher than even the nuclear plants that are in California on an earthquake zone, for whatever reasons, geo-hazard or whatever. And we've got glass logs and they crack. So, what kind of hazard risk assessment has been done about earthquake shifting with stored glass logs? I have never thought of that until tonight. They probably would be in some sort of container, but when you think about inside the vit plant itself, there's going to be this deep, dark, cold box that no one will ever be able to open, like Pandora's Box for millennia and it will have horrible things in it, well, what happens if that thing cracks? So, there are a lot of -- this is an impossible situation and it's horrible to try to think about all of the possible things that could go wrong, but those are two that stand out in my mind: earthquake risk and long-term storage with this thing that may never work.	Vitrification causes the hazards to become immobile. The glass will be packaged for transportation and disposal. WTP hazards are analyzed and described in WTP DWP Chapter 6, Procedures to Prevent Hazards, and WTP DWP Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.

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Drija Bertish	SST	We've heard tonight testimony from Ecology that says there are funding issues, that it's going to take 30 years to treat all of the tank waste alone. We've got stuff in unlined trenches that's there far beyond what's actually legal and permitted and it's not even being addressed because there are no funds for it. It's a safety hazard. So, the whole point of this conversation that keeps repeating because there is an apparent public loophole here is that just cut it off and say no more. I agree with all of the comments that were posted at the beginning of the meeting, the themes of the comments from other people, and one of them was about this. I think it's a really poor choice to wait until 2022 to even bring up the issue of what to do about the tanks, single or double. We can't afford to wait that long. This stuff has been leaking for decades already. We need to address it now. I personally don't believe, and I'm a skeptic on this issue and apparently so are other technicians who've looked at some of the problems coming up with the vit plant, there was just a big report that came out that says there's a lot of concern over potential hazards there if and when it ever goes active. And so, I think it's kind of a fool's errand to think that we should wait on the single or double-shell tank problem until this thing gets up and running. The stuff is in the groundwater. It's already moving and I think that we can't afford to just put all of our eggs in one basket and say the vit plant is going to be the saving grace, because I don't think it's going to work. In fact, it may blow up. So, that being the case, we need to address the problem with the tanks and their leaking, and figure out a way to stop that, if it requires building additional tanks now -- we can't wait 2022 to even make a decision on that. It needs to happen now. And I think that the permit needs to state that, that we can't wait until then. I think the guy from Riverkeeper mentioned that the purpose of this permit is to make sure that DOE doesn't drop the ball, not Ecology, but the Department of Energy. And I think it's too late for that. The ball has been dropped so many times that there's a lack of trust there. So, we can't wait until the next permit cycle to address the tank closure plans and that needs to be incorporated in this permit.	The Single-Shell Tank portion of the Hanford Rev.9 Permit includes Addendum J-1, Leak Response Plan, with steps to determine an actively leaking tank and subsequent actions to alleviate the issue as best as possible.

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Eddy Griffith	General	I think it's appalling that Hanford still has 40 miles of unlined trenches 50 feet deep filled with unidentified mixed radioactive and toxic hazardous waste. As we speak, they're actively leaching into the groundwater of the Columbia. They've been doing so without regulation or identification since the inception of Hanford over 50 years ago. Downstream is horrifically contaminated water is used without analysis for irrigation of food crops, and wine. As it makes its way to the Pacific, it decimates our prize salmon runs. Tidal currents eventually make it back to Puget Sound, that would be us. It's ludicrous and morally bankrupt for the DOE to propose mitigating this ongoing hazard by mounding more dirt on top of these trenches. It's imperative that the DOE have a continuous grid of installed monitoring which can identify the waste on regular close intervals. To cover up without cleanup is an ongoing tragedy, and it's in contradiction to the existing state laws. Until such times as Hanford is brought into compliance with its long-standing cleanup commitments, it would be intolerable to consider DOE's proposal for an additional 30,000 truckloads. To do so would cause unbearable risks of overloading an already jeopardized system. It is not the role of a single state to assume the burden of being a national sacrifice area for lack of foresight of the private nuclear industry. Washington State repudiates the risk of becoming uninhabitable for the next 20 generations. We the people insist on a permanent viable cleanup of wastes for which there's no safe [inaudible 18:38].	Ecology agrees that ongoing groundwater monitoring needs to be performed. This activity is being conducted for all regulated units in the permit. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Ellen Leatham	General	This permit is dangerous and the process dishonest. It may better than earlier plans, but it does not prohibit the DOE's plan to turn Hanford into a nuclear and toxic waste dump for the entire nation. It thus callously conceals the near certainty of irreparable ruin to the Columbia River and the Pacific Northwest. It pretends that an additional 10 year wait to clean up leaking tanks is reasonable; and here I find myself sliding into the DOE's pretense that this is only a regional issue, when in fact every American deserves to be informed of this "plan". It does not limit further additions to the quantity of dangerous wastes to be stored in an already vulnerable site. These additions were recently reported in the Oregonian. The public information process was shamefully dishonest, in that your final meeting was published, not in the Oregonian with its statewide readership, but in Portland's local rag, Willamette Week. I'm ashamed of my government's cynicism and hypocrisy.	The areas identified on the Hanford Site as treatment, storage and disposal unit groups are managed under the Resource Conservation and Recovery Act. In addition, there are areas that are managed under the Comprehensive Environmental Response, Compensation and Liability Act regulations. The Hanford Site does not create more nuclear waste. USDOE is cleaning up legacy waste from when the U.S. government was producing nuclear weapons.
Ellen Leatham	General	My question, the one that it raised my hand to ask about this is I'm really happy with the information that you've tried to provide. I appreciate your effort. But I heard that you had a notice in Willamette Week and you sent things out to 900 people who were on your mailing list, but why wasn't there a notice in The Oregonian about this meeting or in the papers in Vancouver? There are neighborhood papers all over this area. Everybody should know. Everybody should know these plans. And we should know who to write to. Why are you only getting money in Washington State that has to do with the economic distress to deal with Hanford? You had notes; you said $2 billion, $2 million? $2 million -- $2 billion a year. Who's on the committee? Who sets that funding? Hanford should be cleaned up. There should be nothing held back. It affects the whole northwest. And I entirely agree that we need to have a ban on new waste as part of this, not a request.	Ecology agrees that we should have posted an advertisement and information in newspapers of general circulation. We will work to ensure the larger population in communities receive information on opportunities for public review and comment.

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Estelle Voeller	General	Please require identification and removal of all chemical/nuclear waste in the buried tanks and ditches and then monitoring of groundwater and soils the entire length of the ditches.	Ecology has reviewed extensively and approved final status Addenda D, "Groundwater Monitoring Plans," (GWMPs) for each unit group that requires the addenda. These GWMPs have taken into consideration comments from the previous draft renewal, discussions and comment resolution with the Permittees to draft GWMPs that adequately address groundwater concerns found in WAC-173-303 and WAC-173-303-340. Addendum B, "Waste Analysis Plans," have been written for operating unit groups that do not require GWMPs yet.
Estelle Voeller	General	Insist on cleanup of all existing waste before consideration of acceptance of any more high level waste.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Estelle Voeller	General	I agree wholeheartedly with the intent to decrease risks of stored fuel at reactor sites. However, transporting such high level waste to interim storage, such as to Hanford is not necessary and not the preferred solution. Many experts recommend onsite dry cask storage until a permanent waste repository is prepared as a superior solution. High level waste is not sufficiently shielded when transported so increases risks to all--humans, other species, air, ground, water--along the routes, and most especially infants and children whose DNA is replicating more frequently. Accidents, fires and/or terrorist attacks would only increase risks exponentially. As the Fukushima catastrophe has reminded us, accidents are possible and carry dire consequences.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Eva Mader	General	I support cleaning up the ditches of the old waste before any more is dumped. The resulting leakage and contamination that has already taken place should make it a logical step to clean up first.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Frank Zucker	General	I and I think several other people have been coming to these hearings for about 30 years now, I believe, and we've been facing the same thing every time. The wishful thinking is a good description of it. We're trying to do something that is not working. We've got to do it a different way, we've got to do something that's going to work because what they're trying to do now is failing and it's going to keep failing and we need a contingency plan, we need some way to deal with this stuff, double-wall tanks made out of the proper kind of steel makes sense, and unless we put that into writing, unless we tell the DOE, "Look, it is what you've got to do," we're going to have trouble. We already have trouble. We're going to have more trouble and it's going to get worse and worse and worse. And I don't want my kid to come here in 30 years and have to go through the same thing and his kids and his kids. There are going to be many, many generations trying to fight this if we keep banging our heads against this same wall. We need some better walls around this waste.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup.

Commenter	Unit Group	Comment	Comment Response
Gail Mace Owens	WTP	The Waste Treatment (vitrification) Plant is an important facility, but it is more important that it be a safe and effective plant. I am concerned that numerous technical employees who work at the site, including the Manager for Environmental and Nuclear Safety and five other top engineers, have gone on record with their concerns that the safety problems in the design are being ignored and suppressed. Worse, several government agency investigations reveal an atmosphere of reprisal against those employees who raise safety concerns. We need to learn from past preventable disasters, including the Space Shuttle Challenge and the Fukushima nuclear meltdowns that it doesn't pay to ignore the technical experts.	Ecology provides environmental regulatory oversight of construction and eventual operations for treatment and storage of dangerous waste at the WTP. Investigation of Department of Energy operations, by other government agencies, is outside the scope of Ecology's purview.
Gail Mace Owens	WTP	Please support the rights of engineers, scientists and other workers at Hanford to voice their concerns without fear of reprisal. I urge you to hold hearings to look into DOE and contractor mismanagement at the Waste Treatment Plant. We need a solid plan to put the plant on the right path, and that can only happen with strong protections for conscientious workers.	Management of employee concerns is self-regulated by the Department of Energy.
Gail Mace Owens	General	We the citizens of the Northwest who voted in WA State by a huge majority to clean up Hanford carefully and completely, as well as not to add more hazardous nuclear waste until the clean up is complete, can't afford a huge, radioactive white elephant here. And we certainly don't want any possibility of explosion or other disaster that I have read is possible with pushing this vitrification plant through without more careful planning and oversight. And it should be obvious that shipping anything back to be stored or disposed of at Hanford is really counter-intuitive at this point. At the "Hazardous Waste Permit Hearing," the DOE spokesperson stated, "Only what was produced at Hanford would be returned for disposal." That is huge and very hazardous for the transporters as well as citizens all along the roadways	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Gail Owens	General	I'm a retired nurse and I have been in Heart of America Northwest for at least 10 years and Occupy Portland Senior Caucus for a while. But I guess, I don't know I don't see anybody else from there, so I'll have to tell them about this. I'm one of the guinea pigs. I was born in the Tri-Cities about a year before the bombs, so I drank a good 18 years worth of the Columbia water that was filtered through a few meters of gravel, I would imagine, and doused severely with chlorine. But it must have been enough that some people were worried that we might be concerned, so they had the Fred Hutchinson people do some health checking on us and their conclusion was, oh, well, there doesn't seem to be a significant enough increase in cancer or problems. But that was done about 10 years ago. Strangely enough -- I'm having my 50th class reunion this year, but I've been hearing all kinds of people besides my parents and classmates and seemingly a larger proportion than it should be in the general population of cancer. And they were first members, it wasn't a family trait, including myself. I'm kind of in -- I heard somebody say, yes, it takes 20 years before you develop a case of cancer and I see the pictures there, but no, didn't get a great big dose like the people in Nagasaki and Hiroshima, but there are some scientific facts that may not be absolutely engraved in stone, and I say this kind of as a nurse and also as a member of the public that reads all kinds of articles about what coffee is doing to us. At any rate, I would like to have more confidence in the DOE than I do in the FDA who tested bees for a week on the pesticides and since they survived, it couldn't possibly have anything to do with all of them dying.	Ecology's Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. If you have health concerns you can visit the Washington State Department of Health's Hanford and Public Health page. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work.

Commenter	Unit Group	Comment	Comment Response
George Gates	General	If anyone may be wondering, and I doubt there's anyone here who isn't aware of the very serious effects of radiation that is casually treated around large areas of population, I would recommend a book published a few years ago called Voices from Chernobyl put together by a journalist named Svetlana Alexievich. It's published by Picador Press. Copies are available from the publisher now for about $16. It contains about 100 different monologs by different people in all walks of life describing the terrible, terrible things that happened to their loved ones, to themselves, that they saw happen to the environment, and the comments are so powerful, it is extremely disturbing and anyone, if you find people -- I'm sure you'll run into people who say, "Oh, we can deal with this. We have the technology." Yes, the Soviets thought they had the technology. Tens of thousands died, and in fact, one of the speakers says we had over 300,000 people in there trying to clean that plant up and we really don't know how many of them are dead now because the government covered up so much.And does that sound familiar? Anyway. I just wanted to say this. The book is called Voices from Chernobyl.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Gerry Pollet	General	From the attached email: As described in this presentation, it is impermissible to issue a Determination of Non-Significance or Mitigated Determination of Non-Significance when: a) there is no description for public review of whether the proposed permit conditions will adequately prevent violation of relevant standards; b) there is no description in an accompanying environmental document of the degree to which current or projected conditions may violate standards; and, c) there is no submission by the applicant of proposed permit conditions (mitigation measures) which would prevent violation of standards and prevent all reasonably foreseeable environmental impacts.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology updated the SEPA Determination in accordance with WAC 197-11. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit.
Gerry Pollet	General	See Attachment 2 for original comments and Ecology responses.	

Commenter	Unit Group	Comment	Comment Response
Gerry Pollet	General	The Energy Department decided in 2004 to use Hanford as a national radioactive and chemical mixed waste dump. They already issued the decision. They're only waiting for their environmental impact statement. And they have second proposal pending to use Hanford as a national waste dump, using yet a new landfill right next to the other ones for what they call greater than class C waste, which is extremely radioactive chemical mixed waste. This permit does not have a general condition saying you cannot add any more waste to Hanford. As long as we know that the ground water will be contaminated over and over again for 10,000 years. Ten thousand years. That's unacceptable to say we don't have a general condition saying you can't open a new landfill and you must not add another ounce. That's what ought to be in here. Secondly, you've heard that the state has attempted what I would call a Band-Aid approach, saying, well, the exiting landfills, we have a condition saying you can only take certain types of offsite waste and not very much. That's too little. It's a Band-Aid approach, and it fails to consider the fact that all the wastes mixed together in the ground water, and it's ridiculous to say if one little landfill doesn't contaminate the groundwater above standards, that you're to going to look at them all together because they all contaminate it all together. And it's our river and our children's health.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Gerry Pollet	SST	Tonight we've had a lot of discussion about why not have a general condition barring offsite waste in this permit? Instead of we've heard let's rely on a promise by the Energy Department not to start shipping waste until the year 2022. The Energy Department has a record, in fact is on the list of most egregious environmental law violators in the country issued by EPA. They have a record of breaking their commitments. So, relying on a promise from the Energy Department is pretty foolhardy. So, the Department of Ecology, though, has said and we applaud the fact that the Department of Ecology has put into the permit for an individual landfill represented by this bottle, that no offsite waste can come in if this landfill, this bottle, has so much waste in it from onsite that it will leak into the groundwater representing by the bigger bottle in such a manner that the risk budget is exceeded and the groundwater here is contaminated where it may be used by the public over the next 10,000 years. The Energy Department has issued a draft environmental impact statement, called the TCWMEIS, which says over the next 10,000 years, the existing wastes from multiple landfills at Hanford, 40 miles of unlined trenches, high level nuclear waste tank leaks, will contaminate the groundwater, the big bottle, over and over and over again above standards throughout 10,000 years. So, if we have a condition that says this is all the waste that can go into the groundwater from this landfill and adding offsite waste to it will exceed the standard -- trying not to spill it. Oh, it just meets the risk budget from one landfill. But what happens when we have 40 miles of unlined trenches, high level nuclear waste tank leaks, and another landfill that the Energy Department says it will open up in the year 2022, which is not in this permit yet, but it will apply for because they will say, "We have an agreement with the State of Washington that allows us to send waste to Hanford in the year 2022"? And the next Energy Secretary and the next administration, desperate for a place to send waste from more nuclear weapons production will be saying, "Hanford's available, the permit allows it, it never barred it as a general condition. It only barred it for this landfill, and therefore, we can add a new landfill and pour more waste into -- oh, we're exceeding our risk budget." Let's carefully put that down.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. The single-shell tanks are not currently active and are considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA.

Commenter	Unit Group	Comment	Comment Response
		You get the picture. We need a general condition that says because of the existing wastes that have already been released to the soil and will be contaminating the groundwater, because the Energy Department has no firm plans to be able to prevent that contamination from repeatedly contaminating groundwater above standards over and over again for the next 10,000 years, therefore we bar offsite waste from all existing landfills, and all new landfill applications, and it's that simple, and then we don't have a trust problem with the Energy Department. We don't have people asking the Department of Ecology, "Why don't you -- if you are barring offsite waste, why isn't in the permit?" It's not okay to just have in the permit for the one landfill, one at a time without considering the cumulative impact of all the landfills, all the releases, and that's what we're asking is for general permit condition to do what the people of the Northwest ask for. Thank you very much, and thank you for holding the additional public hearing in Portland and next week in Seattle.	
Gerry Pollet	SST	Let me start by saying while we've had a very good dialog and I think it really shows the question and answer would astound many people who have commented at meetings in Tri-Cities that those people in Seattle or Portland don't have knowledge and in-depth, I think you've shown that you really do and you care. And yes, the public understands and believes that this permit is the vehicle for ensuring that the State of Washington's belief that more waste should not be added to Hanford is going to be put into place in an enforceable manner. Let me turn to single-shell tanks and a couple of predicates here -- precursor statements. First, RCRA, the federal law that our state has to implement [inaudible 37:16] this permit says that when you have available treatment, it is required that you must use it. It is not optional. And you may not store wastes for over a year if you have available treatment. Secondly, RCRA and our state law requires a contingency plan for the storage of wastes. A contingency plan is what happens when there is a leak or release or other event. Now, this draft permit has contingency	Ecology provided a SEPA determination for Rev. 9 in 2012. SSTs received a Determination of Significance and Adoption of the TWRS EIS for the Rev. 9 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal. The Rev 9A Permit will include Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks have either been removed or are at the top of the list to be removed. Waste will continue to be removed from the Single-Shell Tanks, to the Double-Shell Tanks, and to the Vitrification Plant until all waste is removed from all tank farms.

Commenter	Unit Group	Comment	Comment Response
		plans, ironically, for the small things. So, what happens if there's a drum of waste that leaks? But it's kind of like the bank analogy, too big to fail. There is no contingency plan in this permit what happens when double-shell tank leaks? There is no contingency plan for what happens when we have additional single-shell tanks leaking. Thirdly, SEPA, our State Environmental Policy Act, requires that not only is there analysis if the impacts of actions, but an analysis if the impact of current conditions, and alternatives and mitigation plans. The action for single-shell tanks is not whether or not you close it, which is out in the future and whether or not you clean up the soil. This permit has a very significant action. It is the continued storage of waste in the single-shell tanks and the removal of those wastes. I think that from the question and answer comment period earlier, it seems that the Ecology staff has glossed over this or fails to understand that the action you are taking with this permit is not inaction, it is an action of allowing the wastes to remain in tanks to the year 2040 or longer. And how do you remove those? There is no analysis, however, of the risks of storage of those wastes for that extra period of time, which was extended from 2018 to 2040 by agreement between the Energy Department and the State of Washington. In the old and out-of-date and inadequate and never was legally adequate waste remediation system EIS from 1996, which the state did not believe was adequate at the time, the wastes from these tanks was all going to be emptied by 2018. Relying on that EIS now is a sad and hopeless, ridiculous joke. It is not adequate. It never was adequate, but now, you cannot say that you're relying on it because it never did consider what would happen to the year 2040, never considered what would happen if double-shell tanks leaked. It denied the reality at that time that tank leaks migrated away from the tanks and would reach groundwater. It actually denied that that was the case. We now know that was a lie. So, we're entitled to and need to have a new environmental impact statement considering what are the alternatives, what are the mitigation alternative, and those need to include the fact that there is available treatment for a small segment of the tank wastes that is permitted by the State of Washington and adjacent facility operated by Perma-Fix, it is only	

Commenter	Unit Group	Comment	Comment Response
		a small portion of the tank wastes that can be treated there. But secondly, there is no consider and no contingency plan to address the fact that both single-shell and double-shell tanks make leak, whether due to catastrophe or metal failure, or due to pipe failure in the next two to four decades. It is very likely that that will occur. It is not just a potential, it is a likely significant impact, and this permit is designed to allow the single-shell tanks system to continue to operate for that period of time. That's what you are permitting. That's the action. So, where's the mitigation? Where's the contingency plan? We need that contingency plan and the most logical contingency plan are several new double-shell tanks. In 2006, we knew that the sister tank to the one that's now -- may be leaking in for its inner wall, AY101, its sister tank, 102, had been found to have corrosion reducing the thickness of the wall at about 19%. That was 6 to 10 years ago. We know that these tanks are going to fail. They were only built for a 40-year lifetime and now, 40 years has lapsed. Sixty to 100 years will lapse before some of these tanks are emptied and we need to have a contingency plan in the permit that addresses and puts in place a schedule for removing the wastes.	
Gerry Pollet	General	Heart of America Northwest is greatly concerned that the Department of Energy and Department of Ecology have agreed to allow in offsite wastes in exceptions to this permit for eight types of offsite waste, which were reflected in a legal agreement that is essentially expiring with the release next week of the tank closer waste management environmental impact statement. And we believe it is inappropriate to lock in any of those exceptions without any analysis of the impacts of adding in offsite wastes under those exceptions. The biggest of those exceptions that has not ever been considered in terms of analysis is the exception for Pacific Northwest National Lab waste, as mentioned in the discussion period. PNNL, Pacific Northwest National Lab, has signed formal agreements to begin work on plutonium fuel production at Hanford in its facilities for the Energy Northwest commercial reactor. These operations could result in large amounts of highly dangerous mixed and plutonium wastes at Hanford being added to the waste streams for disposal. And without an EIS, it is entirely inappropriate to lock in an exception that allows an offsite waste in this manner. And there is no EIS.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue:

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		Secondly for tonight's comments, wanted to talk about that environmental impact statement. The public has been deprived of having environmental impact statement to review and comment on the numerous impacts the potential alternatives, and whether or not the permit will actually protect the groundwater, public health, safety, and the environment in the event of accidents, etc, under the permit conditions. The EIS to be issued by the federal government called The Tank Closure Waste Management EIS is ironically going to be issued next week after these hearings close and all of you will have been deprived of the right to see this. We're gravely concerned and we don't think it's a coincidence that the Energy Department choose to issue that EIS after the hearings end, and of the gravest concern is the tank closer and waste management EIS has two decisions in it that greatly effect this. First, the Energy Department is likely to say, "We readopt the proposal to use Hanford as a disposal site for the equivalent of over 17,000 truckloads of low level and mixed radioactive hazardous wastes," and that would go into landfills at Hanford which are not barred under any permit condition right now if they build a new landfill or if they claim that the individual effects of any one given landfill will not contaminate ground water. We need to look at the cumulative effects. Those cumulative effects are supposed to be discussed in the environmental impact statement, which none of us have been able to see. Secondly, that EIS is supposed to give a view of what are the impacts of leaving waste in the bottom of tanks, 1% is the draft preferred option, and failing to clean up the leaks from those tank wastes? We need to see that in order to know whether or not it is safe to even have waste spend 5 years or 10 years sitting in single-shell tanks in terms of the additional risk of leakage, risk of catastrophic events causing airborne releases which would put Spokane and all of eastern Washington at great risk. We need to see that EIS and then to look at what the permit should be doing.	Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

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Gregory Sottier	General	A lot has already been discussed, so I don't want to repeat it. But I just want to say that the Hanford site, it's devastated. Especially when you get up into the 200 area, it's like an open wound that's just festering and there's really nothing that can be done to remedy it. The damages are so complete. I know this because I went on a tour just recently and I was quite horrified by what I saw. And also, it was very, very sobering. That said, though, with that devastation and the idea that there may be more devastation arriving via truckload and truckload, and 20,000 tons of nuclear waste being generated by our nuclear power industry each year, has to some place. I have very, very little faith, unfortunately, in our engineers these days and their ingenuity to contain nuclear waste. I have no faith in the Department of Energy, especially when Floor Corporation and Bechtel corporation are in the back room. What that means to me is that you are our last line of defense on this. You are the last line that can say, "You know what? We're actually going to protect the people of this region. We're not going to go with the corporate projection. We're not going to go with the idea that nuclear wastes can be contained safely for thousands and thousands of years." Okay? We need you to protect us. We need you to really draw a line and say, "Hey, look. No more nuclear waste needs to come in here," and let's get effective mediation in place for the existing nuclear waste that's already here. So, I ask you that. To remember that. The government's not going to do it for us. These giant corporations aren't, either. It's really up to you guys.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. We agree that Hanford must be regulated and cleaned up to ensure the community and its residents are protected. Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

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Heidi Strangski-Lambert	General	Well, I want to thank you for the ones that came from Olympia and the others that came from the Tri-Cities. I'm from the Tri-Cities, so I know that's quite a drive. Looking at your guys' mission, your mission is to protect the Columbia River. So, when living in the Tri-Cities, you really feel like everything's fine and people defend the elk and the birds and the fish, and how everything's fine, and I'm not an expert and I'm not a scientist, but I do know that radiation lasts thousands and thousands of years. I also know facts like 4.3 million gallons of radiation went directly into the river a day from 1963 to 1985. So, 4.3 million gallons of radiated water went back into the river, but everything's fine. You know? And I know it's a big river. I know of people eat out of there, a lot of people make their living off of it, and a lot of people are dying around it, and a lot of animals and fish and lots of things. And you guys are the solution. You guys are the tough guys. The Department of Ecology is supposed to be the ones that are protecting that. So, to me, I feel like you guys are -- you say you're monitoring it. Who's monitoring it? Other scientists, or like other people brought up, who's the gauge? What's this gauge that's monitoring? Are we using modern science? Because where do these isotopes go? We know they're there. We know they're out there. So, again, I hear a lot about what's going to happen on Hanford in the gates that's not leased to CGS, not leased to the DOE fed. What's going to happen to the Hanford that's already escaped? What's going to happen to the Hanford that's already loose? The last 80 years we're dumping millions of gallons a day, 4.3 million a day, what happened to all of that? So, my question to the Department of Ecology is, please make the Department of Energy own it. Let them take responsibility for it. Please quit singing that everything is fine. That's why everyone here is upset, because for decades, we've lived down the river and are dying and are being told it's fine. Or, that trucks are going to down our highway and we're going to get cancer and, you know what? That's our fault because we lived in this era? That's what the government's job is to do, is to protect people, and that's what I'm asking you guys to do.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Helen Burlingham	General	As a fourth generation Chicagoan and somebody who's lived around the world, including countries with dictatorships, you'd think I would be totally cynical and I'm not because I keep thinking the Pacific Northwest is better. I expect better things of Washington State than I've seen in New York State. Let me tell you, I was an environmental activist for 30 years in Western New York, and we have a place there called West Valley, which was under the Department of Energy. It's teeny tiny compared to Hanford and it is a very small place, as I say, in Western New York where they're contaminating the river because there were trenches of supposedly low level nuclear waste. I appreciate those of you who have to listen to this are treated as the enemy. I have great respect for people who work for the government. And I will say this in a better forum, but I would like the State of Washington to look at the actual record in Western New York and West Valley. I think it might be a little helpful in dealing with this huge issue. And by the way, when I hear the name Bechtel, I cringe. Anywhere near -- I saw that name in Saigon in 1967 and that's when I found out that our U.S. Aid overseas goes to all our American corporations. I would just like to say one more thing. Do you remember Roll on Columbia, Roll on? Do you know that was about the dams? Well, this is another dam thing.	Ecology's Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Ecology's Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Helen Wise	General	Dear Andrea Prignano, The Hanford Waste Management Area is the most dangerous area in the country. Our state must not give a permit to add 17,000 truckloads of radioactive wastes to that site until real cleanup is instituted in the Hanford area. Radioactive material must be contained so it cannot leak into soil and into groundwater and the Columbia River. In essence it is active forever relative to our lives and the lives of our children and grandchildren. Dig all radioactive chemicals and remove them in a deep geologically sound repository. Sincerely, Helen Wise Ellensburg, WA 98926	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

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Hillary Ohm	General	My concern is that we protect the river. I mean, Hanford, I just went there for the first time in April and drove around the reservation and got to see how desolate it is out there, and it is very isolated, but -- and the local people there don't seem to have as much concern, so it almost is a good location except for the fact that it's right on the Columbia River and this is a jewel of our state and the Northwest and I think every effort needs to be taken to protect the Columbia. We cannot let radioactive wastes contaminate the river. That would be a national tragedy. So, I just hope that every effort, every -- all the resources can be put to that. And what, a decade ago, almost a decade ago I voted against allowing any new nuclear waste to be transported to Hanford and I thought we let the state know, Olympia know that we don't want any more waste transported there, but it just seems like why waste money on initiatives if it can be overturned, overridden, the feds can tell us that our votes don't count. I think that the state needs to represent us and prevent any new nuclear waste from being transported to Hanford until all of Hanford is cleaned up and safe. So, I agree with the double-shell tanks, that's a no-brainer. I think that that is very important. If any of the waste is going to be stored onsite, the double-shelled tanks are essentially. And I'm a taxpayer and I think that our money needs to be spent efficiently and we need to do it right and I don't know, it just seems like there's a lot of experimentation and a lot of failures and -- what are we going to do in the future? I mean, our economy is not getting stronger and I don't think the long-term outlook is real good, so let's just stop producing any more nuke waste, we don't need any more nuke plants, we don't need to permit any more nuclear power and we need to get rid of all the arms that we have. So, let's take care of the current problems, clean it up, don't add to any future problems, and thank you.	Ecology has reviewed extensively and approved final status Groundwater Monitoring Plans (GWMPs) for each unit group that requires GWMPs. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule. As for the plumes, they have been greatly reduced over the last ten years with the help of the Pump and Treat system. There are monthly, quarterly, and annual sampling campaigns that help track and update the modeling of waste contamination. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE staff in a Tier 2 meeting. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Now that the Vitrification Plant has started processing waste, the waste in the Double-Shell Tanks will be retrieved. The overall plan it to not store waste in the DSTs.

Commenter	Unit Group	Comment	Comment Response
Holly Barker	General	I didn't prepare anything formal, but I guess I just have a couple of value -- I guess the values that I have as a citizen that I'd like people to consider as they do the permit process. A couple of those are that we're really at a juncture of an important decision here. We make these decisions not just for ourselves and our own generation, but because of the longevity of the plutonium and other contaminants here, we really have an inter-generational responsibility here. So, being as careful as possible and cleaning up to the most stringent levels possible I think is important. Also, thinking about who owns that land and thinking about tribal perspectives. I am not a tribal member, and so, I would like to see the values for cleanup and land of the tribes reflected in whatever cleanup process is in place. For me, I guess the issue is the stabilization. I worry quite a bit about not fully characterizing what's below the soil, and I worry about any just cover up with either dirt or some kind of capping system. My preference would be to fully understand what is below the surface and to stabilize that so we don't have to worry about it moving through the environment at all.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology has reviewed extensively and approved final status Groundwater Monitoring Plans (GWMPs) for each unit group that requires GWMPs. The Rev 9A Permit will help regulate the cleanup actions in accordance with MTCA regulations and coordination with CERCLA.

Commenter	Unit Group	Comment	Comment Response
Hugh McGavick	General	I come here, you are not the enemy. You are people who are fulfilling your public service obligations and I appreciate you coming to Oregon just across that big river out there that's so central to the whole thing. I understand that public hearings are legislatively mandated. I understand that due process requires that you give citizens an opportunity to be heard. You don't have to listen to them. You don't have to pay attention to them. You don't have to agree with them, but you need to hear them and that's what you're doing now. Thank you for hearing me. I urge you to do more than check off the due process box of letting me think that I'm making a difference because I'm speaking up, because there is so much at stake here. You are not my enemy. Are you commissioned and you have accepted and taken an oath of some sort of office, I suspect, to uphold the laws and to be the gatekeeper which your mission statement requires, to protect, preserve, and ensure the people and the resources. This is your opportunity, it's your moral imperative when you took this job. The frustration in this room I hear is this is a fait accompli and we can't do anything except bitch and moan a little bit, and it's going to happen anyway. And if that's what it is, that's what it is. I don't give you that presumption. I hold a higher place for you. I affirm you come from a place of integrity. I affirm you come from a place that you will exercise your power to stop DOE if they are acting contrary to the best interests of your constituents: the people, the land, the river, the air, the world, the Earth. If you can do that, then you will have fulfilled your mission. And if you can't, then resign your position and make a statement that this is a charade. I affirm it's not a charade. I affirm you are all well-intended and I thank you for your best efforts.	We value meaningful public involvement. With this in mind for the upcoming draft Rev 9A Permit renewal comment period, we are going to have multiple meetings, both informational and public hearings. This information will also be advertised and shared with the media. The meetings will be offered in two different formats, online and in-person. Additionally, we are going to be sending several advance notices to allow the public plenty of planning time for attendance or involvement. Public comment periods are your opportunities to comment on Hanford cleanup. We review and respond to every comment we receive. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A Permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Irene Cook	General	I do appreciate the position that you folks are in, and you really are our last line of defense because it's really clear that what the DOE intends to do is to write off the Northwest. We are to be a nuclear sacrifice zone. In planning to bring in more waste, in allowing radiation levels hundreds and thousands of times higher at this facility than at any other facility in the United States, and in shipping it across the highway -- you said that the shipments were safe, but not the DOE shipments. Some of that waste is so radioactive that it has to be handled by robots. It's very clear that they have given up on us. Hanford was cited out of ignorance, there is no ignorance now, and there's no innocence on the part of the Department of Energy. They have just given up and you are the only thing that stands between us and the absolute and permanent long-range contamination and ruination of this region. I feel like what's involved right now is a very deliberate and conscious decision to turn Hanford into a protracted and slow Fukushima, and I ask for the governor to exert her authority and I ask for you to actually advocate for the river and for the people and for the whole environment of the northwest.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. Our communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work.
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	Permit conditions for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	Part A Form for Trench 94 has been completely revised for Rev. 9A. This includes an updated site photograph, updates to plan diagrams and topographic maps, and clearly identified DWMU boundary.
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	The Fact Sheet for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev. 9A Permit.
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	The Addendum B, Waste Analysis Plan for Trench 94 was totally revised for Rev. 9A. Comments received during the 2012 public comment period were addressed in the revision.
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	The Addendum C, Process Information for Trench 94 was totally revised for Rev. 9A. Comments received during the 2012 public comment period were addressed in the revision.

Commenter	Unit Group	Comment	Comment Response
J. R. Wrzeski	LLBG Trenches 31/34/94	See Attachment 2.	The Addendum D, Groundwater Monitoring is marked as RESRVED for Trench 94. Trench 94 has an exemption from providing a Groundwater Monitoring Plan per letter 23-NWP-156.
J. Wilson	General	Please clean up Hanford adequately and do not add anything else to the waste that is there. It is extremely important!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
J. Wilson	General	Please clean up Hanford adequately and do not add anything else to the waste that is there. It is extremely important.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Jack Dresser Ph. D.	General	With 177 tanks of horrific waste already at Hanford, many threatening the Columbia river watershed and fishery with carcinogenic radiation, the only further USDOE actions you have any right to authorize is CLEANUP, period! For how many decades have Hanford cleanup efforts continued without success? And now you want to bring MORE there?	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Jack Dresser Ph. D.	General	As a veteran, I'm particularly appalled by the collusion between the Department of Energy and the Department of Defense in providing depleted uranium for weapons that have actually basically turned the Middle East into an inhabitable region, in effect, forever. I provided the photographs of the deformed Iraqi babies that was provided to you by another audience member. Frankly, I am really tired of being a non-suicidal member of a suicidal species. During your presentation, I repeatedly heard the words safety and nuclear somehow juxtaposed in the same sentence, which is just an Orwellian twist of language. When we look at Fukushima, which was recently visited by Senator Wyden, one of the things he found reported on was Reactor Four has over 1,500 fuel rods that are hanging by a thread in a badly damaged building just waiting for the next big wave to come along. Two of those fuel rods are enough to destroy most of the human race. So, it is simply insane to be talking about safety and nuclear in the same night, much less the same sentence. And yet, when we look at the Department of Energy budget last year, they had $22.6 billion allocated for various nuclear uses. They had $2.2 billion allocated for renewable fuels, renewable energy. That ratio has to be complete reversed. That's a 12:1 ratio. This industry simply has to be shut down, if humanity and the rest of the life on this planet is going to survive, this industry has to be shut down. Completely. As soon as possible. And forever. One way of accomplishing that is by refusing to allow any disposal sites. If the citizenry surrounding every single candidate disposal site refused to allow it, they'll no longer be able to produce it, and that should be our goal.	The Hanford Site is no longer a production site. The focus since 1989 is cleanup and Ecology committed to regulatory oversight of Hanford with the signing of the Tri-Party Agreement. Ecology has a current permit for the Hanford Site-wide Permit, Rev. 8C. The renewal met requirements for WAC 173-303-806(11). It has been Ecology's commitment to renew the permit and ensure all the treatment, storage, and disposal unit groups are included in the Hanford Site-wide Permit. Following the public comment period in 2012, Ecology has been working with the U.S. Department of Energy on deficiencies identified in the permit renewal. Ecology's Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Jack Dresser, Ph.D.	General	Following Fukushima, it is unbelievable that any state in its right mind would even consider collaboration with the USDOE in irreversible highly toxic pollution of our environment and grave endangerment of human life on earth. I am sick of being a non-suicidal member of a suicidal species. The current USDOE proposal is obscene. How dare you consider approval of this on behalf of your state with monstrous repercussions on ours??! With nuclear reactors built all around the Rim of Fire that threaten human survival from catastrophic mishaps like Fukushima, and DU weaponry poisoning the genes of other peoples in Iraq, Afghanistan, Palestine, Pakistan and elsewhere, the nuclear industry must be shut down altogether as wished by the original atomic scientists who created this Frankenstein monster. The only place nuclear energy is safe for humans is on the sun. Even at a mean distance of 93 million miles it causes melanomas through damage to human DNA. JUST SAY NO!	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Jake Asher	General	I'm here with No Nukes Northwest and I'm just really concerned that there's not a lot of meetings like this about such a controversial subject. There's a lot of people that are really concerned here and I'm really glad to see that. I think we need more public input. I think we need to hear more people. I think we need more time, because I didn't know about this meeting here today until a week ago. I think we could to a much better job at informing people. I see a lot of billboards and things about not speeding in our cars, but I think we could see some more billboards about why we want to kill our kids. I understand that there's like a 30-day process or something about this permit where we don't get to hear everything about it because it's a living thing, and I have more questions, but I'm going to give you 30 days until that comes up. That's what I got.	We value meaningful public involvement. With this in mind for the upcoming draft rev 9A permit renewal comment period, we are going to have multiple meetings, both informational and public hearings. They will also be offered in two different formats, online and in-person. Additionally, We are going to be sending several advance notices to allow the public plenty of planning time for attendance or involvement.

Commenter	Unit Group	Comment	Comment Response
James Cole	General	I cannot understand why this site is to have more nuclear waste when the existing problems of unlined ditches and leaking tanks is being ignored. There is a major river below this area that carries water for miles that could endanger thousands of people. This includes children who will inherit the responsibility of running this nation, and correcting our other mistakes. This is as bad as Chernobyl which occurred under the Soviet Regime.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks has either been removed or are at the top of the list to be removed.

Commenter	Unit Group	Comment	Comment Response
James Eachus	General	I don't understand how anyone could think of allowing more nuclear waste to be trucked into Hanford, when we haven't even been able to clean up or control the waste that is already there. The permit process should be used to protect the people of Washington State, not to serve the convenience of Washington, DC.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Jan Castle	General	To comply with state and federal laws, the permit should require the 40 miles of unlined trenches to be: • Characterized and a plan drawn up for treatment and disposal, • Monitored for soil and water contamination with monitoring wells around the entire trench area until the waste can be: • Removed, treated and safely disposed of.	Within the HFFACO, the M-024 TPA milestone sections, there are requirements for monitoring groundwater. The permittees are required to sample wells and soil for RCRA and/or CERCLA sites. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Jan Castle	SST	The permit should include the conditions for closing the single shell tanks so that all contamination is considered in its totality, in order to determine if proposed actions will adequately protect groundwater.	On December 14, 2012, the Final Environmental Impact Statement (FEIS) on Tank Closure and Waste Management for the Hanford site appeared in the federal register. This EIS considers the combined effects of all contamination and will be used when making permitting decisions. Closure of the SSTs will be completed in a way that is compliant with the requirements in the Hanford Site-wide Permit, all applicable laws, and protective of human health and the environment.
Jan Castle	SST	These tanks should be required to be cleaned up to the maximum extent possible, rather than leaving the last 1% of sludge, which can contain up to 20% of the toxins. WA Hazardous Waste Laws require that the contamination be characterized and removed. You are legally bound to honor this.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Jan Castle	General	Regarding the importation of off-site waste to Hanford for disposal, the permit should bar USDOE from adding more waste to any landfill or other disposal site at Hanford so long as the overall groundwater contamination levels from existing wastes will be above health and groundwater standards in the future.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Jan Castle	General	The TCWM EIS has already shown conclusively that the current waste that has already leaked will keep groundwater contamination well above health standards for 10,000 years. Therefore, the permit should say right NOW that no offsite waste can be allowed because any offsite waste just makes the future violations of groundwater standards worse. The risk analysis today supports having this as a condition for ALL waste sites anywhere on Hanford's Central Plateau.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Jan Castle	General	Since USDOE plans to open a brand new landfill for 17,000 truckloads worth of "Low-Level" and "Mixed" radioactive hazardous wastes and has a pending proposal to send 12,000 truckloads of GTCC wastes to Hanford to be buried in yet another landfill, it is imperative that the permit make it absolutely clear to them that either of those projects are unacceptable to the citizens of both Washington and Oregon who have to live with the hazards of both transportation and storage of these wastes, so that USDOE can make other arrangements for them.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Jan Castle	General	I will submit online detailed comments about your plan. What I'd like to say this evening to you folks at Ecology is that I have a concern that in your collaborations with the Department of Energy, that you are buying into their worldview and their version on the limits of what is practical rather than standing apart from them as a regulator. The Richland office of U.S. DOE is a self-perpetuating world unto itself, which continues to operate in the same way with the same rotating cast of contractors no matter who is in charge. And I know you've talked to the same EPA employees that I have who have worked at different DOE sites who will tell you that the Richland office operates differently and much less efficiently than other DOE offices. I'm asking you not to buy into DOE's worldview. They work for the military industrial complex. You work for the people of the state of Washington. You're in a unique position within the Tri-Party agencies. You are the only ones who can require DOE to adhere to state and federal laws regarding cleanup, and in fact, you are violating federal law yourself if you do not do so. EPA can't do this. Only you can. If you do your part, DOE will figure out how to do theirs and how to fund it. We in Oregon have little officially input here, yet more of our citizens than Washington's are at risk from contamination of the Columbia and from transportation of hazardous wastes on our highways. We rely on you, as do your own citizens, to protect us from the hazards of transportation and inadequate storage, treatment, and disposal of hazardous and mixed radioactive wastes. You have the legal authority to require that no more wastes be imported to Hanford until current wastes are thoroughly cleaned up. We ask that you use it.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Jan Gordon	General	Send no more waste to Hanford. There are 40 miles of unlined trenches with radioactive waste that must investigated for content and cleaned up. Current storage tanks are leaking, and others will probable be leaking soon. The cleanup is not being done as promised and the Columbia River and water supplies, salmon and human lives are at risk. The trucks hauling waste will cause cancer and death to hundreds along the route even if there are no accidents or acts of terrorism. We cannot bring more waste to Hanford. We need to find a successful way to clean up and contain the waste that s here.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Janet Hogue	SST	1. Please add language that prevents offsite waste being added to any current or NEW landfill at Hanford. The current waste at Hanford is already projected to cause contamination in excess of current health and groundwater standards. THE PERMIT MUST BAR THE ADDITION OF ANY M0RE HAZARDOUS WASTE. 2. The single shell tanks need to be emptied and cleaned up. What is the delay in closing them? The tanks must be emptied and leaving 1% of the waste in the tanks is still contaminating groundwater. They should be closed in compliance with Washing State Hazardous Waste laws. Find the contamination and remove it. Don't just cover it up! 3. There are 40 miles of unlined ditches filled 50 feet deep with radioactive wastes. The ENTIRE TRENCH MUST BE REGULATED. THEY MUST ALL BE REMOVED AND TREATED. In order to be sure that the ground water has not been contaminated it MUST BE REQUIRED that soil column and groundwater monitoring continue along the trenches. 4. Develop an aggressive schedule to remove and treat the illegally stored wastes. THE FACILITY MUST NOT BE ALLOWED TO ACCEPT NEW WASTE! There need to be strict limits on the types of wastes accepted at Hanford. And any permit must include regulations to ensure that all new wastes are tested and removed for treatment within one year.	The single-shell tanks are not currently active and is considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA. According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Janet Hogue	General	I have been following the ineffective nuclear waste clean-up efforts at Hanford for years. I do not understand why the Department of Ecology is not on-board to remove this waste, but would rather bury and cap the contamination. That does not work! This is one of the worst ecological disasters in our nation and the world. Please address the issues at Hanford and require that the Dangerous Waste Permit has some teeth.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Jason Pedegana	General	I'm from No Nukes Northwest and generally concerned citizen of the Cascadian Bioregion and Earth. I'm going to keep it short because my friends here and everybody else, kind of lot of concerned faces in the crowd anyway. Just please look at all these people out here and don't give us the runaround like we have been given for the past 60 years plus about the safety and the -- non-safety. It's frustrating. It's frustrating because, A, a lot of people know. And B, we would like to know more. It's our livelihood. It's our future. It's your future. Would you drive in one of these trucks with a kid or your grandmother or any of your loved ones? I just want to know that my friends and family for the next generations that plan on living here where I was born and raised have the same safety that you guys are promising us right now.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Jay Otterson	SST	And want to express my concern about the U.S. Department of Energy's plan to send more radioactive waste to Hanford and I don't know how this can be seriously considered when we have 40 miles of unlined ditches that are leaking and that the Energy Department proposes to just cover those with dirt rather than clean up. And I'm also concerned about all the liquid waste that has leaked from the high-level liquid waste storage tanks and the fact that the DOE wants to leave the waste remaining in these tanks. This waste needs to be removed from the site. You know, wishful thinking won't make it go away and we can't allow more waste to be dumped at a site that such massive amounts of waste that is currently leaking at. The hazardous waste permit needs to reflect the principle of cleanup first and Washington State needs to insist on a hazardous waste permit that protects our state from additional waste and that requires cleaning up of the waste that's currently at Hanford.	The Single Shell Tanks (SSTs) are a closure unit and are not accepting new waste. According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the SSTs includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Jay Sprunkle	WTP	I am concerned that the treatment plant from the get-go has all been smoke and mirrors, simply a way for whatever larger than in-the-know experienced contractors -- how many have there been? And I think a few of them were fired. They're able to get a huge payout on the promise that the panacea is being designed as it's being built [?will 43:50] really do the trick, huh? "Trust us." Track records [inaudible] those corporations that are making this thing work is -- well, work, I don't know -- is kind of mixed as to their integrity as in overbuilding in other venues and such. Basically, been hardly keeping track, but that does seem to pop up regularly, doesn't it? If this technology is not tested to be true, what is the resultant of the projects that were spoken about here? The French project, the Savanna River, and some apparent micro projects. Does that technology work? I don't know. Well -- okay, say that it does work. We get to the point that the vit plant works. Where will be the repository for -- will it stay on site in a less volatile form? Are we back to being a national sacrifice zone? Again, after all the black cell issues of the vit plant get addressed or dismissed as not expedient and the plant is turned on, presto, then all the new materials start to be flowing in there and accepted. I'm assuming not to be treated as the vit plant as the vit plant is for Hanford cleanup only. I guess the new wastes are just to be stockpiled since it's already such a polluted site. Maybe we [inaudible 45:16] like that, huh? I may be off track here, but -- yeah. My sense is that's unacceptable. That's my conclusion. To please accept no wastes.	The Bechtel National, Inc. contractor has been the primary contractor to design and construct the WTP Facility since 2000. They submitted the permit application with USDOE in 2001. Ecology has worked with the Permittees to develop enforceable and compliant language in permit conditions and chapters. Ecology expects the Permittees to meet their commitments to complete design and operation of both the Direct Feed Low-Activity waste and Baseline configurations that will treat and dispose of low-activity and high-level waste forms. Ecology expects USDOE to dispose of the high-level waste from the WTP in a deep geologic repository. The high-level waste will not be disposed of at the Hanford Site. The low-activity waste will be disposed of at the Hanford Site. Regarding your concerns about waste being transported and stored onto the Hanford Site, under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). The WTP Facility has been constructed and permitted to treat and dispose of waste from onsite facilities. Ecology has not approved permit language in the WTP Permit to include the importation and treatment of waste from offsite facilities. Under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE or DOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). In preparation for the revised renewal, Ecology and USDOE were in disagreement on this issue. Ecology agreed to remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE. Ecology will proceed with including unit specific conditions for CWC, 325 HWTU, T-Plant, IDF or LLBG in the revised Hanford Site-wide Permit renewal. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. The following template permit condition language is proposed to be included in the current Revision 9 Hanford Site-Wide Permit: The [Unit Group Name] [Unit Group Type] Unit Group is located in the [Hanford Site

Commenter	Unit Group	Comment	Comment Response
			Location] of the Hanford Site. The [Unit Group Name] Unit Group provides treatment, storage, or disposal of dangerous waste and/or mixed waste (MW) generated on the Hanford Facility [or other Unit Group description of waste treatment, storage or disposal activities] and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Permittees may manage the following wastes as described in the Waste Analysis Plan which are approved for [treatment, storage or disposal] at the [Unit Group Name] Unit Group: dangerous and/or mixed waste that is generated from processes at the Hanford Facility and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Changes to the wastes authorized for management at [Unit Group Name] Unit Group may be authorized via a permit modification decision pursuant to Permit Condition I.C.3. Requests for permit modifications must be accompanied by an analysis adequate for Ecology to comply with SEPA.

Commenter	Unit Group	Comment	Comment Response
Jeffrey Luke	SST	How can the Washington State Department of Ecology (Ecology) issue an operating permit to a non-compliant unit, such as the SST System? Another question of considerable import to the Board should be: Does the Permit unilaterally revise the original relationship contemplated between the Hanford Federal Facility Agreement and Consent Order (HFFACO, a.k.a. the Tri-Party Agreement [TPA]) and the Permit? The questions above were conceptualized after review of the Permit and review of a June 27, 2002 letter (letter 02-0MD-036) wherein the United States Department of Energy (DOE) Office of River Protection noted the following relative to the SST system: In recognition of the inability to meet current regulatory leak integrity requirements, these tanks and ancilliary systems should be considered not fit for use per 40 CFR 265. I 91. Notwithstanding this fitness determination, the U.S. Department of Energy (DOE) and the State of Washington Department of Ecology (Ecology) have recognized since 1988 that the SSTs did not comply, and could not be brought into compliance, with the tank design and operation requirements of the Dangerous Waste regulations. Consequently, DOE and Ecology have negotiated and agreed to a comprehensive series of enforceable milestones in the HFFACO to allow temporary continued use of SSTs pending SST closure. (Emphasis added) Looking more closely at the TPA, specifically Article VII, "Work", the following is provided: The RCRA permit, whether issued by Ecology and EPA, or Ecology alone after delegation of HSWA authority, shall reference the terms of this Agreement, and provide that compliance with this Agreement and corrective action permit conditions developed pursuant to this Agreement shall satisfy all substantial corrective action requirements of RCRA/HSWA. (Emphasis added) The citations above reflect two facts: 1) Ecology recognized in 1988 that the SST system was noncompliant with certain tank system regulations and could not be brought into compliance with the operational requirements of the Dangerous Waste Regulations and, therefore,	The single-shell tanks are not currently active and is considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA. Ecology is working with the permittees to close the SSTs safely and to protect human health and the environment during the extended closure period. Ecology and the Permittees are negotiating TPA milestones to create schedules for when they will be completed.

Commenter	Unit Group	Comment	Comment Response
		constructed the TPA to govern that tank system through closure; and 2) the Permit, when issued, would simply reference the TPA where the TPA already had structures in place to regulate the operation of the Hanford Site. Question How, then, can Ecology now issue an operating permit to a unit understood, and agreed, to be non-compliant since 1988? This minority opinion requests a response to that question. Discussion The following is offered relative to the second point, noted above, concerning the possibility that the Permit changes the relationship originally contemplated between the TPA and a permit to be issued. At V.4.B.3.c, of the Permit the following is found: By December 30, 2015, the Permittees will provide Ecology with a schedule of permit modifications to be submitted to Ecology for review and approval for all WMA process information other than WMA C. The schedule will define how all WMA process information will be submitted to Ecology no later than December 30, 2025, with no more than one WMA submittal to Ecology per year. Permittees will submit the WMA process information permit modifications to Ecology in accordance with Permit Condition V.4.B.3.a following the approved schedule ... (Emphasis added) At milestone M-045-84 the following is provided: Complete negotiations of HFFACO interim milestones for closure of the second WMA (including a schedule for submittal of closure plans and a risk assessment and final closure). Due Date January 31, 2017 (emphasis added) At milestone M-045-85 the following is provided: Complete negotiations ofHFFACO interim milestones for closure of the remaining WMAs (including a schedule for 200 West Area closures, the submitted of closure plans and risk assessments and final closure dates for each WMA). Due Date Januarv 31, 2022	

Commenter	Unit Group	Comment	Comment Response
		(emphasis added) As can be seen by a comparison of the due dates above, the Permit has unilaterally modified the TPA without following the processes outlined in Chapter 12 of the TPA Action Plan. Question What is the basis, in the TP A, for modifying the TP A outside of the process outlined in Chapter 12 of the TPA Action Plan? Discussion Another, and understandably more complex, question the Board did not address was: Does the Permit unilaterally and, therefore, inappropriately, modify Consent Decree CV -05085 (the Decree) filed October 25, 2010? The Decree at Section IV -D, "Regulatory Coordination" provides the following: For the matters covered by this Decree, the Parties shall ensure, to the maximum extent possible, that any existing or required permit, order, or approval associated with constructing and operating the WTP, SST waste retrieval, and reporting it is consistent with the requirements of this Consent Decree. (Emphasis added) At Section VII-A, "Amendment Process", the Decree provides: This decree mav be amended by mutual agreement o(the State and DOE upon approval by the Court. The party proposing the amendment shall provide the proposal in writing to the other party, along with a justification for the amendment. Proposals to amend the schedule shall be submitted in accordance with, and shall be evaluated under the criteria described in paragraphs B through G, below. Within ten (10) working days of receipt (except as provided in Section VII-F), the other party shall notify the party proposing the amendment, whether or not the amendment is acceptable. (Emphasis added) The Decree, then, clearly identifies a process for modifying the Decree. This process involves approval by the court. However, at condition V.4.F.2.a, of the Permit the following is provided: TWRWPs submitted to Ecology under the requirements of the Washington	

Commenter	Unit Group	Comment	Comment Response
		v. Chu Consent Decree, or the HFFACO, must ensure compliance with the requirements of Permit Conditions V.4.F.3 and V.4.F.5. The conditions listed at the cited sections of the Permit appear to constitute a somewhat lengthy addition to the requirements provided by the Decree. Question This minority opinion requests a response to the question: How can Ecology modify the requirements for a TWRWP without going through the process identified in the Decree? Discussion The final representative concern this author wishes to bring forward is that of conditions being unduly burdensome and/or onerous. This opinion will consider proposed Permit conditions as well as comments from the Board. Relative to permit conditions, this author turns first to condition V.4.E.2.d.i, wherein the following is provided: LDM is required for catch tanks and miscellaneous tanks ... There are 36 miscellaneous tanks and an uncounted number of "catch tanks" (simply because that number far exceeds 36, I didn't want to count them all). Few of these tanks currently have leak detection and monitoring (LDM) in place. Few, if any, of these tanks are known to pose an immediate threat to human health or the environment. The cost of LDM for the risk associated with these tanks must certainly be considered before invoking a condition such as this. The money to pay for the LDM for these tanks will have to come out of the DOE budget. What other activity in the DOE budget will suffer to pay for this? For the societal benefit to be gained by this activity it is entirely too burdensome. At V.4.E.2.f.ii, the following is provided: In the event a leak, intrusion, or spill is validated for SSTs, the Permittees must, within twenty-four (24) hours after detection of the leak or release ji-mn a tank system, remove as much of the waste from the tank system as is necessary to prevent further release to the environment in accordance with WAC 173-303-640(7)(b)(i), incorporated by reference.	

Commenter	Unit Group	Comment	Comment Response
		The condition cited above is also relative to catch tanks and miscellaneous tanks. As noted above, most of these tanks do not have LDM in place. For those that do, frequently the path to enter a tank is so torturous that it may take weeks, possibly months, to develop a means to enter the tank and pump out the waste. Conceivably, then, it could cost DOE millions of dollars to come into compliance with this single requirement alone. Again, from where will that money come? And, again, this condition appears too burdensome and onerous. Turning now to the Board's adopted advice, the first to be considered is the advice bullet which states: The Board advises Ecology to include a permit(s) condition(s) requiring demonstration of adequate soil characterization and remediation (including both the vertical and lateral extent of the vadose zone) ... The conditions proposed by the Board, above, are such that they are almost impossible to comply with. Further, were DOE to attempt compliance, that attempt would certainly cost millions upon millions of dollars. C-Farm is used as an example in the following paragraph. It is known there is contamination in the groundwater under C-Farm. That contamination appears to have the signature of the waste from C-Farm tanks. C-Farm is approximately 800 acres in size. Approximately 150 boreholes have been drilled in C-Farm in attempts to characterize the vadose zone and find the contamination plume that is believed to have contributed to the contamination in the groundwater under the farm. Those 150 boreholes have cost DOE somewhere between two and $10 million. That C-Farm plume has not been found. One reason may be that the tools used to interrogate the vadose zone (drill boreholes) are between two and six inches in diameter. That means we are using tools between two and six inches in diameter to interrogate over 800 acres'. For the Board to require that DOE be able to "demonstrate" "adequate" characterization and remediation of the vadose zone under such circumstances is to send DOE off on a quest admirable only in the eyes of Don Quixote and again at a cost that appears capable, by itself, of "breaking the bank." Board Advice, 16th advice bullet:	

Commenter	Unit Group	Comment	Comment Response
		The Board advises Ecology to provide within the permit(s) condition(s) requiring all RCRA regulated near-surface pipelines to be clean-closed per WAC 173-303-610. The Board may certainly advise Ecology that it desires that Ecology clean close. However, for the Board to "advise" Ecology that all near surface pipelines be clean-closed is for the Board to advise Ecology to ignore its process and procedures. Ecology must look at each WMA and consider the circumstances associated with closure of each WMA and determine whether clean closure is appropriate within that WMA or for that WMA. That is what the regulations require. Board Advice, 17th advice bullet: The Board advises Ecology to recognize that requiring placement of a barrier over the top of an area (e. g. a tank farm) for closing an area to industrial closure standards does not remove the obligations to complete the cleanup to the highest standards practicable, in accordance with WAC 173-303-610 & 665. In fact, and to the contrary of the Board Advice bullet above, if DOE were to go through the permitting process as defined and if Ecology were to permit "landfill closure," the placement of a barrier over the top of a WMA would indeed meet all appropriate regulatory obligations and the highest applicable standards, if a barrier was determined to be a component of final closure.	
Jim Kelly	General	I have two points. One is that it seems to me that this is certainly a situation, an action that requires an environmental impact statement under SEPA. It really concerns me that a declaration of non-significance would be issued on an action that is this truly significant. So, I think it's really asking, begging for a lawsuit, and I'd like to see you go back and do a full EIS on this.	Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Jim Kelly	General	The main thing I wanted to testify to is that I think it's critically important that this permit, given that this is the one time when state regulators have the authority and the leverage to be able to address a question that has been addressed very clearly by the citizenry of the state of Washington, that you put in place a truly enforceable ban on offsite waste and do so for a time period that takes us to the point where the site is really incompliance with law. That is not, in my mind, the time when the vitrification plant may be beginning to operate, because I think if anything goes wrong with the vitrification plant, it may not be evident that it will go wrong at the time it begins to operate. It may be 10, 15, 20 years down the road. And so, why compound the potential risk that we have when we're dealing with such an enormous problem? I just -- you know. I can't see any reason to do that and I see every reason for the state, and particularly the regulatory body responsible here to take a real strong position on this.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Jim Kelly	General	The other thing is that opportunities like this don't come along often for this state, and we have, as a state, a great opportunity here to follow the will of the people as expressed in 2004 when Initiative 297 was passed, and to put in place an enforceable ban on offsite waste until the site is in compliance with all laws. I mean, the people spoke very clearly, 70% of the voters in Washington State said that that is the policy they would like you to follow. Now, the fact is that that was overturned by a Federal Court. That does not change in any way the position of the people that this is something, when we have an opportunity, we should grasp.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.
Jim Minick	General	Dear Agency Staff : Please consider this email an official comment regarding the possible authorization to bring outside radioactive waste to the Hanford Nuclear Reservation for disposal. I strongly oppose such action. No outside waste should be brought to Hanford until the waste that is there is dealt with. That has to be the priority. I live downstream about 1/2 mile from the Columbia River in the town of Lyle, Washington. I use the river for Kayaking, swimming and have fish from it. I don't want any more pollution in the River.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
John and Polly Wood	General	Dear Hanford, I am very concerned about the danger of the hazardous waste being produced and "stored" at the Hanford Nuclear Reservation. It is an immense threat to our well being. Over a short time, the only difference between the leaks of poison and radiation from Hanford and a terrorist's dirty bomb is who makes it happen. Even Japan is better off having been nuked twice than we will be in the medium term time frame as a result of the nuclear program's completely irresponsible, expensive, and toxic behavior. We can do better.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
John and Polly Wood	General	Do not bring more waste of any kind to Hanford for "storage".	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue:
John and Polly Wood	CWC	Remove or render harmless the untested waste drums in the central waste complex.	Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

Commenter	Unit Group	Comment	Comment Response
John and Polly Wood	General	Clean up and stabilize the waste in those 40 miles of trenches.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
John Howieson	SST	Include and clarify in the Definitions Section that piping and ancillary equipment that formed a component of/part of the tank systems (SSTs, DSTs, MUSTs, vaults, pits, valve boxes, etc.) as well as systems to which these disposed (cribs, trenches, etc.) are part of tank systems regulated under Dangerous Waste Regulations and subject to the WAC173- 303-610 and WAC 173-303-640 tank closure process.	Ecology has worked closely with the permittees to produce Addenda that describe all of the components that are part of the tank systems. The closure addenda of this permit includes information for C Farm and milestones are in place to supply future closure plans for the rest of the WMAs.
John Howieson	Parts I & II	Parts I and II Conditions: 1. Revise the II. Y Condition to the 2010 II. Y condition which better retains Ecology's ability for RCRA oversight of corrective action on the Hanford site and retains public involvement/review opportunities of documents relating to Hanford site cleanup. Revise Part I and II Conditions to include oversight of groundwater for the Hanford site for all TSD units.	The II.Y permit condition reflects the II.Y Permit Conditions includes the groundwater units in the Part I and II conditions and were included in the 2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050). The II.Y Permit Conditions will be retained.

Commenter	Unit Group	Comment	Comment Response
John Howieson	LERF/ETF	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facilities: 1. Identify in the Permit conditions the criteria for receiving new waste streams at ETF and whether or not the process includes a public participation process. 2. Include a Permit condition to require hazard identification and hazard mitigation in the Permit. 3. Include a Permit condition requiring the waste acceptance criteria to include identification of abnormal feed streams. 4. Take into consideration the uncertainty of characterization and volumes of waste streams primarily coming from WTP and going to ETF, ensure a robust and conservative waste acceptance criterion for ETF, and ensure that these criteria are reflected in the Permit conditions.	Ecology agrees with all four points of this comment made by PSR. We feel that these points are already addressed in the Rev. 9 permit as follows: 1) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan. The requirements for accepting waste at ETF are explained in the WAP, Section B.4. The LERF and 200 Area ETF can treat wastes with waste numbers identified in Addendum A, and in the 200 Area ETF Delisting Petition, 40 CFR 231 Appendix IX Table 2. Prior to management of any new waste stream, it may be necessary to modify the WAP through the permit modification process. These modifications would be class 2 Permit Modifications, which include a public comment period (173-303-830 Appendix I, B.1.d.) 2) Hazard identification and mitigation at LERF/ETF are addressed in Addendum J and Permit Condition II.A. Unit specific Permit Condition III.3.G references Addendum J, Contingency Plan, and Permit Condition II.A. Addendum J includes hazards specific to the LERF/ETF. Permit Condition II.A requires the permittee to follow Permit Attachment 4: Hanford Emergency Management Plan (DOE/RL-94-02). 3) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan (WAP). Section B.4 of the WAP describes the Influent Waste Acceptance Process. This process determines the acceptability of a particular aqueous waste at the LERF or 200 Area ETF prior to acceptance of the waste for treatment or storage. 4) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan (WAP). Section B.4 of the WAP describes the Influent Waste Acceptance Process. This process determines the acceptability of a particular aqueous waste at the LERF or 200 Area ETF prior to acceptance of the waste for treatment or storage.

Commenter	Unit Group	Comment	Comment Response
John Howieson	242-A	242-A Evaporator: 1. Include a Permit condition to ensure the 242-A Evaporator has necessary upgrades, including replacing equipment, to safely operate the additional campaigns to process WTP waste streams. 2. Include a Permit condition to address accumulation of organics in the facility's tanks. 3. Identify requirements for limiting volatile organics within the waste acceptance criteria condition. 4. Ensure Permit conditions address the dangers of ammonia, including flammability and corrosivity.	Condition III.4.B.4 requires the 242-A Evaporator to be run for the protection of human health and the environment and any replacement equipment needs to meet the requirements outlined in Addendum C, "Process Information". Management of organics is sufficiently covered in Addenda B and C. Section B.10.1.4 addresses concerns about ammonia.
John Howieson	325 HWT	325 Hazardous Waste Treatment Units: 1. Include a Permit condition to ensure 325 facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks).	Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied on a schedule that prevents hazards to human health and the environment.

Commenter	Unit Group	Comment	Comment Response
John Howieson	CWC	Central Waste Complex: 1. Modify the Permit condition (III.6.0.4.b) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes. 2. Include necessary Permit conditions to bring the Central Waste Complex into compliance (e.g., RCRA requires dams, berms, and containment be present that equal the content of the drums) 3. Revise/include Permit conditions requiring all waste stored at the CWC to be cataloged and properly labeled. 4. Revise/include Permit conditions requiring all wastes properly characterized to ensure that explosive or flammable chemicals are properly stored. 5. Include a Permit condition requiring all wastes to be tested, characterized and properly designated and removed for treatment on an accelerated schedule which is incorporated into the Permit's compliance schedule. 6. Include a Permit condition requiring all waste stored outdoors to be removed from the facility and properly stored or shipped offsite. 7 .Include a Permit condition limiting acceptance of any new waste until proper characterization/designation/and needed treatment of the existing waste has been done.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
John Howieson	WRAP	Waste Receiving and Processing Facility (WRAP): 1. Modify the WRAP Permit condition (III.7.0.4.b) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes. 2. Include a Permit condition requiring characterization of all waste streams processed in the WRAP facility. 3. Include/revise a Permit condition to include the function of the WRAP facility is to package TRU waste for shipment to WIPP, and that mixed waste can have TRU components and be identified as mixed TRU waste or MTW. 4. Include a Permit condition or revise the WAP to include a detailed list/document of the criteria and the methodology for determination of the presence of liquids in the wastes. 5. Include/revise a Permit condition to include criteria on how to obtain representative samples from a drum containing multiple containers of waste that lack identified/associated process information.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
John Howieson	222-S	222-S (Laboratory) Dangerous & Mixed Waste: 1. Include a Permit condition to ensure the 222-S identification of all waste codes for all waste processed in the facility. 2. Include a Permit condition to ensure 222-S facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks).	1. Addendum B (WAP) requires identification of all waste codes for waste processed in the facility. The certified Part A Form submitted by the Permittee contains waste codes for all wastes processed in the dangerous waste management units in the 222-S facility. 2. Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied that on a schedule that prevents hazards to human health and the environment.

Commenter	Unit Group	Comment	Comment Response
John Howieson	General	Integrated Disposal Facility: 1. Modify the waste acceptance criteria condition or include a Permit condition which ensures IDF only accepts wastes that have been vitrified or whose entire packages have performance equivalent to vitrification. 2. Delete all references to bulk vitrification in the IDF Permit. 3. Base the Risk Budget Tool evaluation on the sampling results of releases from the bottom of the trench, and not take credit for the soil column. 4. Include a Permit condition requiring submittal of a set of testing protocols to verify how waste will release from the waste packages in IDF.	As listed in Ecology Response to Comment #2 above, the IDF facility is authorized to accept dangerous/mixed waste that satisfies the waste acceptance requirements listed in Addendum. This includes: ILAW in glass form from the WTP Low Activity Waste (LAW) Vitrification Facility; used WTP low-activity waste melter systems; secondary solid waste (SSW) from WTP; solidified SSW from the Effluent Treatment Facility; Fast Flux Test Facility non-liquid waste and demolition waste resulting from decommissioning; secondary waste (LLW and MLLW) from operations at the Tank Farms and Solid Waste Operations Complex; Non-Comprehensive Environmental Response, Compensation, and Liability Act of 1980, non-tank LLW and MLLW from various onsite generators; and mixed waste generated by IDF operations.

Commenter	Unit Group	Comment	Comment Response
John Howieson	DST	Double Shell Tank System and 204-AR: 1. Revise/include a Permit condition for sampling the DSTs to ensure tank wastes maintain their waste acceptance criteria chemistry. 2. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment). 3. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645. 4. Ecology should use its authority under the Resource Conservation Recovery Act (RCRA) to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high- level nuclear waste stored in Hanford's underground radioactive waste tanks.	1. Maintenance of waste chemistry during storage in DSTs is governed by Addendum C, Process Information. 2. Response to a leak in DSTs is governed by permit conditions III.12.K.8 and the contingency plan Addendum J. 3. Closure of DSTs is governed by Addendum H, Closure Plan, which follows WAC 173-303-645. 4. Permit reflect agreements with permittees regarding improvements in chemical vapor controls (i.e., NUCON).

Commenter	Unit Group	Comment	Comment Response
John Howieson	LLBG Trenches 31/34/94	Low-Level Burial Grounds Trenches 31 & 34: 1. Revise the Part A form to include all trenches as subject to Dangerous Waste Regulations until such time that characterization (including actively digging up waste to be able to conduct sampling) demonstrates it is not RCRA waste. 2. Include permit conditions for the management of retrievably stored waste. 4. Revise/delete text in the Permit conditions supporting 'in-trench treatment or placement of liquids within landfill'. 5. Revise/delete text in Permit conditions supporting placement of [storing] containers in a landfill. 6. Include a Permit condition requiring a new Container Storage facility for LLBG wastes subject to WAC 1783-303-630 regulations.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
John Howieson	LLBG Trenches 31/34/94	Low-Level Burial Grounds Trenches 94: 3. Revise the Inspection requirements to ensure that the Permittee can demonstrate its ability to maintain oversight of the trenches. 4. Revise/include a Permit condition to ensure that lead and mercury are included in the analyte list of Contaminants of Concern for the groundwater monitoring plan.	3. The inspection addendum for Rev 9A was revised and includes requirements for all oversight and maintenance. 4. Trench 94 is exempted from having a Groundwater Monitoring Plan. Therefore, no sampling of groundwater will take place.

Commenter	Unit Group	Comment	Comment Response
John Howieson	SST	Single Shell Tank Unit: 1. Revise Permit condition V.4.B.3.f (e) [refers to releases to the soils and groundwater] to include identification of specific methodology to be used in determining how releases are occurring and the process for compliance with WAC 173-303-640(4) requirements. 2. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment). 3. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645. 4. Revise Permit condition V.4.B.3.f (h) [refers to tank integrity assessment]to include identification of the process for selection of the methodology/criteria for determining tank integrity citing also WAC 173-303-640(2) regulations and identify the requirements necessary to be in compliance. 5. Revise Permit condition V.4.G.2.c.i [refers to closure Performance Standards] to include all specific criteria which must be met in order meet the required "Impracticability Demonstration." 6. Revise the V.4.C Conditions [refers to SST Groundwater Monitoring] to reflect and cite WAC 173-303-645(11) [Corrective Action Program for release from regulated units] requirements. 7. Include a Permit condition requiring submittal of all TSAPs (Tank or Component Specific Sampling and Analysis Plans) subject to WAC 173-303-830/840 permit modification requirements. 8. Revise Permit condition V.4.B.3.g. (k) & (l) [refers to maps and descriptions of tanks/ancillary equipment/piping distribution] to include specific criteria which must be met in order to determine integrity status and retrieval status. [see previous comment regarding Tank Assessments] 9. The Milestone Schedule for closure of SST does not support WAC 173-303-610 or 173- 340-360(4) requirements. Ecology should negotiate a more realistic Closure Compliance Schedule with DOE. 10. Include/revise a Permit(s) condition(s) requiring the construction of new double shell tanks and emptying of the tanks known or suspected of	1. Permit Condition V.4.B.3.f is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information. 2. The Rev 9A Permit includes Addendum J, Continegency Plan (Building Emergency Plan) and Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leak is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. 3. This is covered in Permit Conditions V.4.D and V.4.H.7 and the Addenda D, Groundwater Monitoring Plans and Addenda H, Closure Plans. 4. Permit Condition V.4.B.3.f(h) is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information. 5. Permit Condition V.4.G.2.c.i is now V.4.H.2.c.i. This Permit Condition has been rewritten to provide clearer requirements to provide a practicability demonstration. 6. Permit Condition V.4.C is now V.4.D. This Permit Condition section has been rewritten to provide clearer requirements for Corrective Action (see Permit Condition V.4.D.4). 7. Permit Condition V.4.H.7.c requires the permittees to submit TSAPs, but TSAPs are not part of the Rev 9A Permit. Ecology cannot regulate the modification process of the TSAPs using the Rev 9A Permit process. 8. Permit condition V.4.B.3.g. (k) & (l) has been removed. This information has been included in Addendum C, Process Information. 9. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan. 10. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. Part of the System Plan is to install a new DST to help with the retrieval and move waste to the Vitrification Plant. The Rev 9A Permit will be revised if needed to support a final System Plan. 11. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan. 12. Permit condition V.4.C.5 requires the characteristics of waste. This information has also been included in Addendum C, Process Information.

Commenter	Unit Group	Comment	Comment Response
		leaking as expeditiously as possible. 11. Include/revise a Permit(s) condition(s) to require a priority basis when establishing plans for emptying tanks (i.e., the "Systems Plan") and the alternatives considered shall require that the tanks be emptied in RCRA priority (i.e., First priority - known leaking tanks, second priority - suspected leaking tanks, third priority - non-compliant single shell tanks, finally all remaining tank wastes). 12. Include/revise a Permit(s) condition(s) to ensure the Permittee (DOE) complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of SST sites contamination. 13. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit(s) condition(s) requiring characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the SST Tank Farms and other mixed waste sites. 14. Include/revise a Permit(s) condition(s) to ensure better validating leak detection methodology and capability and to establish the criteria for what constitutes acceptable leak detection capability. 15. Include/revise a Permit(s) condition(s) requiring the pumping of water or waste out of "dry wells" and requiring annual (or more frequent) gamma logging of the dry wells to depths >55 feet past the first wetted zone in the soil, and to the full well depth in most cases, to improve early tank waste leak detection. 16. Include/revise a Permit condition(s) requiring the Permittee (DOE) to extend dry wells that do not extend to at least 60 feet and to utilize these wells to perform gamma logging and detection of leaks or extension of contaminate plumes. 17. Include a Permit(s) condition(s) requiring all changes to groundwater monitoring to be incorporated into the RCRA Permit(s) per the WAC 173-303-830/840 process.[JV1][JV2] 18. Revise/include a Permit(s) condition(s) to require annual submittal of a schedule for closure of tanks to meet Milestones M-045-70 & M-62-45 requirements. 19. Utilize Ecology's Omnibus authority under WAC 173-303-815 to include a Permit(s) condition(s) to require annual submittal of a budget report which identifies necessary increases in personnel, equipment, and costs to support compliance with Milestones M-045-70 & M-62-45 requirements.	13. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. Permit Condition V.4.H.2.c.i requires Risk Assessment documents to be revised before closure can be started for WMA C. 14. Permit Condition V.4.J.7 covers the requirements for tank leak detection monitoring. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection. 15. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging. 16. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging. 17. Revised Permit Conditions V.4.D include groundwater monitoring. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. 18. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan. 19. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan. 20. Permit Condition V.4.H.2, Closure Performance Standards, cover this requirement. Closure plans will be submitted for all SST farms and will be modified per permit conditions. 21. Permit Condition V.4.K and Addendum K, Post-Closure Plan, cover these requirements. 22. Ecology has worked closely with EPA Region 10 to ensure regulatory requirements are being met. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan.

Commenter	Unit Group	Comment	Comment Response
		20. Revise/include a Permit(s) condition(s) to ensure closure of the SST System and compliance with Performance Standards is subject to the WAC 173-303-830/840 process. 21. Revise/include a Permit(s) condition(s) to ensure there is a re-evaluation of the Post- Closure care period after 30 years with subsequent periodic reviews [decadal] throughout the post-closure period (WAC 173-303-610(7) and WAC 173-303-610(8)). The post closure period should be at least 10 half lives of any isotope that is a COC (if it's plutonium that would be 240,000 years) or as long as there are potential health risks from any non-radioactive COCs. 22. Work closely with EPA Headquarters Region 10 RCRA staff to discuss what timeframes are acceptable for the State to allow for known or suspected leaking tanks to remain in that status pending development of treatment. The State should ensure they have written agreement with EPA about what is an acceptable time period to empty the known or suspected leaking tanks, and the non-compliant tanks. 23. Ecology should use its authority under the Resource Conservation Recovery Act (RCRA)1 to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high-level nuclear waste stored in Hanford's underground radioactive waste tanks. 24. Ecology should revise/include a Permit(s) condition(s) to ensure IQRPE certifications to comply with WAC 173-303-640(2) requirements and include certification of the SST leak integrity.	23. USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C. 24. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements.

Commenter	Unit Group	Comment	Comment Response
John Howieson	241-CX	241-CX Tank System: 1. Don't refer to closure actions in non-existent CERCLA documents [e.g. 200-IS-1OU]. Dangerous Wastes closure regulations require these details in an approved Closure Plan. 2. Include a Permit condition(s) citing use of MTCA Method B values to meet the Performance Standards requirements. 3. Revise the cleanup of associated ancillary facilities. Partial closure of facilities is not allowed under WAC -610 or -640.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities), WAC 173-303-640 (tank systems), and WAC 173-303-140 (land disposal restrictions). Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of an appropriate MCTA cleanup method will depend on the specific cleanup actions required for the 241-CX tank system. Closure of tank 241-CX-72 may be coordinated with the CERCLA 200-IS 1 Operable Unit remedial investigation. Additional waste characterization will be completed for Tank 241-CX-72 as not all chemical constituents are known; final waste characterization results will be used to evaluate appropriate closure options for tank 241-CX-72.
John Howieson	300A	300 Area Process Trenches: 1. It is inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645/646 corrective action permit requirements while the remedy selected remains an unproven technology. 2. Include a Permit condition to ensure that natural attenuation is not "determined" by the Director of Ecology as meeting the corrective action Permit requirements of WAC 173- 303-646.	1. A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) has been completed for evaluation and proposed remedy for groundwater in the 300 Area. This CERCLA process is being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action. 2. Ecology disagrees with writing a permit condition which precludes the use of any remedy. The prudent approach is to evaluate all remedial alternatives and select the best one(s).

Commenter	Unit Group	Comment	Comment Response
John Howieson	183-H	183-H Solar Evaporation Basins: 1. Groundwater contamination and other issues associated with the evaporation basins suggest that they have not been closed appropriately under the regulations. Ecology should place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610 and WAC 173-303-650.	ECY accepted USDOE's closure certification for the 183-H unit on 5/13/1997.
John Howieson	1324-N	1324-N Impoundment and 1324-NA Percolation Pond: 1. Groundwater contamination and other issues associated with the facility suggests that it has not been closed appropriately under the regulations. Ecology should place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610 and WAC 173-303-650.	The closure report demonstrates that this site including the associated pipelines have achieved the soil closure performance standards established in the CMS/CP (DOE/RL-96-39, Rev. 1A). The pipe scale results indicate that residual concentrations in soil and pipeline scale will support future land uses that can be represented (or bounded) by a rural-residential scenario, and that residual concentrations throughout the site are protective of groundwater and the Columbia River. The soils underlying these sites and the abandoned influent pipelines are verified to meet the cleanup levels and performance standards. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
John Howieson	General	SEPA Determinations 1. Make the over-arching SEPA determination a Mitigated Determination of Non- Significance. 2. Utilize the SEPA checklists submitted with the Part B Applications and make Permit conditions to mitigate known impacts. 3. Withdraw its determination of non-significance regarding the current phase until it is known what all the Hanford Site mitigation plans will be. 4. Review all SEPA determinations for consistency with Washington State Dangerous Waste Permit Application; Part A Forms; the Unit-specific Permits; and the SEPA submitted with the Part B application of 9-2004.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has expanded upon the SEPA Determination. For more information, the SEPA Determination and Notice of Adoption is in accordance with WAC 197-11 and is available with the draft permit.
John Howieson	324 Bldg	324 Building: 1. Add 324 Building to the Permit. Due to the B-Cell leak which requires extensive cleanup, this unit should be included in the Permit at the very least as a Part IV Corrective Action Unit.	The 324 Building is included in the Hanford Site-wide Permit, Rev. 9A as Closing Unit Group 31.
John Howieson	Parts I & II	3. Revise Part I and II Conditions to include waste analysis/sampling analysis plan(s) criteria. 4. Revise Part I and II Conditions to include waste analysis/sampling analysis plan(s) criteria.	In Part II.D permit conditions, there are requirements for the Permittees to meet WAC 173-303-300 regulations. Additionally, Ecology developed Waste Analysis Plan guidance that requires development of SAPs. Permit condition II.D reinforces the requirements within the WAP guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.
John Howieson	Parts I & II	2. Revise Part I and II Conditions to include Performance Standards.	Agreed. I.J Performance Standards was added to the Part I Permit Conditions.

Commenter	Unit Group	Comment	Comment Response
John Howieson	IDF	For IDF: 5. Revise/include a Permit condition to ensure the process for creating the Risk Budget Tool & that this process considers the following parameters; the concentration of contaminants in the waste stream, the waste form leachability, whether or not the releases from that material will exceed groundwater or drinking water protection standards. 6. Include impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool.	The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D and 8C.2022.2.D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. This comment was originally responded to in Ecology Publication no. 21-05-021.
John Howieson	General	3. Include/revise a Permit condition requiring monitoring of the entire 40 miles of unlined trenches. The monitoring system should include contaminants of concern associated with nearby operable units and the associated groundwater unit(s).	A part of the RCRA Permit: CA-2, Groundwater Operable Units (OUs): includes the investigation and cleanup of groundwater OUs nearby to the unlined trenches and other operable units. All 40 miles of the unlined trenches are included in the 200-SW-2 OU. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. Each of the groundwater OUs has an associated monitoring plan. The monitoring plans were developed to require monitoring of groundwater contamination from the unlined trenches and all other known or potential sources of contamination. Therefore, the Permit already includes requirements for monitoring of the entire 40 miles of unlined trenches.
John Howieson	LLBG Trenches 31/34/94	LLBG 31 & 34: 7. Inform the Waste Analysis Plan & Sampling and Analysis Plan and criteria for waste acceptance at the LLBG by the results of the Risk Budget Tool.	All waste received and disposed at LLBG Trenches 31 &34 Is LDR compliant, as required by the EPA CAFO and the Ecology Agreed Order.

Commenter	Unit Group	Comment	Comment Response
John Howieson	LLBG Trenches 31/34/94	LLG 31 & 34 8. Utilize Ecology's omnibus authority under WAC 173-303-815 and revise/include a permit condition requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops.	The Groundwater Monitoring Plan for Trenches 31 and 34 addresses when the groundwater monitoring network needs to be reevaluated. This includes changes to existing wells, additions of new wells, and removal of wells no longer needed.
John Howieson	LLBG Trenches 31/34/94	Low-Level Burial Grounds Trenches 94: 1. Include a Permit condition identifying the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). 2. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit condition requiring characterization of the vadose zone beneath the trench. 5. Revise/include a Permit condition requiring at a minimum, installation of four additional groundwater monitoring wells (two upstream and two downstream). 6. Utilize Ecology's Omnibus Authority under WAC 173-303-815 and revise/include a permit condition requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops.	This Groundwater Monitoring regime for Trench 94 was evaluated and the permittee compiled a white paper demonstrating that they have met exclusions from groundwater monitoring based on WAC 173-303-645 (Releases from Regulated Units). Ecology issued letter 23-NWP-156 accepting this exemption. This letter is part of the Rev 9A permit in place of a Groundwater Monitoring Plan.

Commenter	Unit Group	Comment	Comment Response
John Howieson	SST	The concern that I want to express has to do with the single shell tanks. There are 149 of these tanks and probably about 67, I think, are known or suspected leakers. There's about a million gallons of leakage from those tanks, so they're way over age. They were built in such a way that they would not conform to current standards, so they're a real problem. The problem that I want to express is the rate of emptying of the tanks. According to the Tri-Party Agreement, those tanks are supposed to be emptied and closed in 31 years. But the rate at which they have been emptied until now, they started emptying the first one 20 years ago and they have emptied eight of the tanks until now. So, that's not doing very well. Recently, they have been emptying them, I understand, at the rate of about 1 per year. So, there's 141 yet to go, that would mean 141 years before they get them empty, which obviously is not acceptable. So, I would like the permit to have a schedule that requires the Department of Energy to empty those tanks at a rate which is going to achieve emptying of all of them within the 31 year landmark or deadline, that way, after a year or two of them defaulting, they can have a judge decide what the Department of Energy must do about the problem. To allow them to go along for a number of years now emptying one per year when they're supposed to be having them all emptied in 31 years is simply not a good idea, not acceptable, and the permit would, I think, be a good vehicle for trying to establish a more satisfactory schedule for that task.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule.

Commenter	Unit Group	Comment	Comment Response
John Howieson	SST	The Washington Department of Ecology is well aware that additional failures of single shell tanks can be expected because the tanks are well past -- 40 to 60 years past their design life and 67 of the tanks are either known or suspected leakers at this time. I ask, therefore, that the Department of Ecology use whatever tools it has available to ensure that the single-shell tanks that are not currently being emptied at a rate that will achieve closure at the time required by the milestone specified in the Consent Decree, that the Department of Ecology use its tools to achieve that objective. The Department of Energy plans to retrieve the contents of three tanks in the C farm this year and three tanks next year. Clearly, that rate of emptying the tanks will not achieve the requirement of the milestone. So, the Department of Energy needs to provide the Department of Ecology with a schedule that demonstrates how they will achieve the milestone, and also, it needs to include some accounting of how they will provide equipment and personnel in order to achieve this task. Obviously, that will require a budget also.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule. Also, all of the waste in the C Tank Farm has been removed and is awaiting closure.
John Knott	General	PSNS&IMF comments to Hanford LLBG draft permit (Trench 94 unit) attached. Cover letter has some general editorial comments. Enclosures provide excerpted pages from draft permit (Trench 94 unit specific sections) with specific requested changes marked in red as lineout for text to be deleted and underline for text to be added. Additional explanatory comments to support the requested changes are included in red as 'comment:...'. Hard copy of letter with enclosures will likely arrive by mail at your office on Tuesday. Per conversation with Mr. Skinnerland this AM, this email will suffice for meeting the public comment deadline.	Ecology responded to the attached documents in previous comment responses. The attached redline/strikeout documents are included with this response to comments document.

Commenter	Unit Group	Comment	Comment Response
John Nelson	General	East coast and western Or/Wash idiots Quit using Eastern Wash/Or for your dumping grounds!!!!! We are fed up with your pulp mills, ammo dumps, nuclear waste dumps, all of Portland's trash and you GD inefficient ugly windmills. Stop it and stop it now!!! Quit complaining Portland, this waste is only passing through your town, its taking up permanent residence here along with your trash dump at Arlington. Do what the French do. Separate out the nasty stuff (4%) and put it in impregnable containers and put it in the mountain caves in Nevada that are already set up for this. The scientists at Hanford told the govt in the 50s to do exactly this and the Govt said " No its too expensive. Put it in 50 gallon drums and bury it in Eastern Wash. No one will care". Guess again you morons.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
John Ritter	General	It's Not the time to even consider using Hanford as a " dump site"! It was promised years ago to clean up the site; well that time is long overdue..... Please clean up Hanford and keep it safe for all those who live near and downriver!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: USDOE and Ecology mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
John Ritter	General	Please, no more broken promises. It is time to clean up Hanford once and for all, and stop the threat of contamination to the Columbia and our nations largest national scenic area, The Columbia River Gorge.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
John Ritter	General	There have been many promises about cleaning up Hanford over the years; it is now time to keep those promises, and NOT add to the problems that exist there. Hanford sits just up river from our nation's largest National Scenic Area---The Columbia River Gorge....please, let's protect this beautiful gift. Clean up Hanford!! Mrs. Kathryn Doss Ritter, Hood River, OR	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
John Rogers	General	Here we are trying to clean up the mess for making the terror weapon. This was the project of the new world order after they had pushed the Japanese into war by cutting off their oil, which was done by cutting off the Royal Dutch Shell oil, which was an Illuminati Organization. The terror weapon was built to threaten the whole planet and now, we are having to clean up the mess from this terror weapon. Not only that, but now we are using nuclear power which is another form of threat to our planet when really, all we needed to have done was to use the Tesla cosmic energy. That would have solved the problem. There never would have been a war. Now we would not have this deadly mess that threatens to destroy what little future we may have. We've made mistake after mistake. We've been led into this seeming endless routine of mistakes, incompetence, and destruction. Thank you so much, our wonderful leaders. You have done a wonderful job leading us to the doom that only you people could prepare for us.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup.
John Wood	General	I do not support new nuclear waste being shipped to Hanford. It is not safe to do so. What is already stored there will still be lethal AFTER the next few ice ages. I insist that WA State use its permit authority to bar offsite waste by limiting use of Hanford's limited disposal capacity to wastes from cleaning up Hanford. Japan won the war, because Nagasaki and Hiroshima real estate is expensive while eastern Washington and the Columbia river will never again be used by humans to live, grow crops, recreate, or anything. There are plenty of jobs trying to make the area more contaminated, but I do not condone these activities. Please do not let ere the price we paid. OK, get crackin'.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
John Wood	SST	We need to get waste out of the leaky Single Shell Tanks and to deal with the reality that the newer Double Shell Tanks may leak before the year 2040, which is how long Ecology has given USDOE to empty the Single Shell Tanks.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule. Also, all of the waste in the C Tank Farm has been removed and is awaiting closure.
John Wood	CWC	You need to find out what is in 68,000 drums of stored waste in Hanford's Central Waste Complex and to remove and treat the wastes within 3 years.	All waste will be designated in accordance with WAC 173-303-070 and 170. Waste located within CWC is currently being reviewed for inclusion in the WIPP certification process. As part of this process, wastes are treated to meet WIPP waste acceptance criteria.

Commenter	Unit Group	Comment	Comment Response
Joyce Follingstad	WTP	I'm Joyce Follingstad, psychologist and registered nurse. And actually, there is no better place to be than here tonight. This is absolutely important. Hanford is a catastrophe of the greatest dimension. Right now, one in every two men in the United States will get cancer, one of every three women will get cancer. How much can the citizenry bear? There's a limit to that. I deal almost daily with people that are scared to death that everything they feel in their bodies is cancer. They are surrounded by people with cancer. We cannot bear more. We need to do a lot better than this permit in cleaning up Hanford. There needs to be regulations that have teeth. I wonder how many of the 1,600 in the Ecology Department are actually on the ground monitoring, regulating, hauling off people that are doing it wrong. We need plans before any permitting, not after. That doesn't even make sense. We need to remove all the waste from the metal sheds, all of those 68,000 drums that are illegally sitting there. We need to have not just trenches that have a piece of plastic and call them lined. We need real waste disposal that is safe. We need to not wait for this vit plant. We've been waiting for decades. And the deal is, we know that waste is safer in a double-lined tank than in a single. And it's time, now, today, to move those wastes. All I have to say -- well, I have a lot more to say, but I would just like to say a line from a song that I will be singing with Aurora [Course 1:27:19] this weekend. Do the ones who make this mess have no babies to hold? ... [spoke again at end of hearing] I would just like to say, I'm Joyce Follingstad, I would just like to say that my understanding is that there are places that are being taken off the list in the permit as sites that, because they've already had some remediation, are considered not necessary to be watched any more. And yet, there is contamination in the soil. I would like them all to remain in the permit because once you take it out of the permit, it's out of sight, out of mind, and it's still contaminated and still going to be hurting the generations ahead.	Ecology is committed to the protection of human health and the environment. Since the renewal was transmitted for public review, we have worked diligently to ensure that all dangerous waste sites under the Resource Conservation and Recovery Act have final status permits and are consistent, equivalent, enforceable, and implementable. All waste generated from WTP will be disposed in a compliant manner, as outlined in the Tank Closure and Waste Management Environmental Impact Statement. Immobilized Low-Activity Waste is slated for disposal at the Integrated Disposal Facility.

Commenter	Unit Group	Comment	Comment Response
Judith Alexander	General	The Hanford Nuclear Waste site must be cleaned up, and NO new waste added. The Columbia River and its water for our citizens is already in danger, and the health of people in the area has been affected adversely. Please make a plan to bar any offsite waste from being added to any landfill at Hanford, including any new landfill, vault or boreholes proposed in the future. Clean up the waste that is already at Hanford before it contaminates groundwater and soil.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Judith Alexander	General	Do not allow current contamination to just be covered up, but be sure it is actually cleaned up and /or truly contained.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Judith Alexander	General	All the waste, including stored mixed waste at the central waste complex should be removed for treatment on an aggressive schedule. Accept NO new wastes!!! This is a huge problem that should have been dealt with long before now, and nothing new should be added to the area before cleaning up ALL the old wastes	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: USDOE and Ecology mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Judith Ginn	General	Come on, folks. We're talking about eventually contaminating not just the Columbia River by Hanford but all down the river and on into the Pacific if we don't take care of the waste properly. It isn't going to dissipate in a few years. This is too important not to do it right. Please don't bring any more waste to Hanford from any site until all that is there is properly contained (putting dirt on the top is NOT properly contained). When that is done then bring no more until it can be properly contained. Let's cut out the zig zagging around rules and do it right -- if not for me then for all future generations.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Judy Pigott	General	Hello - my email is to express my concern over any lessening of the focus on truly cleaning up the Hanford site: completely and expeditiously. This should include having no more waste added to the site until the process of clean up is finished, including removing or cleaning up any waste that has arrived there, whether legally or illegally ... and covering up trenches or lagoons, or monitoring only parts of them is not acceptable. Our Federal hazardous waste law does give Washington the authority to say "NO" to more waste -- and this is an important first step. The public cares about having a clean Columbia, about having water that is safe for wildlife and humans, as well as about having an accountable and transparent government looking out for their best interest. Please take this to mean that adding no new waste, and cleaning up all that is there is important.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Julia Gies	General	The draft permit would allow the U.S. Department of Energy to truck high-level radioactive waste from the southwestern U.S. up I-5, I-205, and I-84 to the Hanford Nuclear Reservation. The cement casks containing the waste emit radiation under normal circumstances, thereby placing citizens living in Portland and along the I-5 corridor at undue risk. In the event of a vehicular accident or fire, the result would be catastrophic.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. Following is information that addresses some concerns. Background Information on Transportation of Radioactive Waste The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. NRC sets design and performance standards for containers that carry radioactive materials. NRC also establishes safeguard and security regulations to minimize the possibility of theft, diversion, or a terrorist attack on shipments. DOT regulations require carriers of radioactive shipments to use “preferred routing,” which takes into consideration such factors as: accident rate, transit time, population density, activities, time of day, and day of week. The safety record for shipping radioactive materials is remarkable. For example, there have been more than 11,000 shipments of radioactive waste to a disposal site in New Mexico, and more than 13 million miles traveled without a single reportable incident. Concerns Regarding Additional Exposure to Radioactive Materials According to the National Council on Radiation Protection and Measurements, the average person receives around 360 millirem annually from natural and manmade sources of radiation. A millirem is a unit of absorbed radiation dose. People living less that a 100 feet from a transport route and exposed to a vehicle containing the highest level or greatest quantity of radioactive materials would receive 0.0005 millirem per shipment.

Commenter	Unit Group	Comment	Comment Response
Julia Gies	General	In 2004, Washington voters passed by an overwhelming margin Initiative 297 which stipulated that no more waste could be stored at Hanford until existing waste at the site was cleaned up. The court that subsequently overturned Initiative 297 stated that its language regarding "Clean-Up First," correctly belonged in the dangerous waste permit rather than in a ballot initiative. However, as of this time, the draft permit does not contain the Clean-Up First language. The Hanford Nuclear Reservation is the most polluted site in the Western hemisphere. There are enormous challenges to the clean-up, and importing more waste will only exacerbate them. The citizens of Washington have already declared that they want Hanford cleaned up first. It is time for the Department of Ecology to fulfill its obligation to protect public health and to use its legal authority to prevent any more nuclear waste from being brought into Hanford.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9A permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Julie Mikalson	General	I came into awareness of the deep crisis with the Hanford Nuclear Reservation in 1983, and I immediately as a member of the Fellowship of Reconciliation. And I was fortunate to be able to meet with people who for years had been acquiring evidence and testimony from whistleblowers, former employees and current employees at Hanford about the unsafe and unconscionable lack of accountability, procedures there. And I was able to deliver to Senator Ron Wyden who also didn't know before all this body of evidence was amassed by the good volunteers here in Cascadian region. Senator Wyden at first was resistant to hear anything because I might sound like some kind of a hippy. But I would like to share some credentials just so you help understand the diversity of the Hell No that you're hearing from people in Oregon and Washington. I was a Clinton/Gore delegate to the Democratic National Convention. The police's job was to make sure I get in there to carry Oregon's vote for the president. I was on	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
		Governor Ted Kulongoski's task force to come up with our new laws, including renewable portfolio standards, which was our prime outcome, to the implementation activities for the renewal energy action plan. And I would like it on record that the mission of the Oregon Department of Energy is not to be a handmaiden to certain federal officials who think it's about safety reports and planning the routes for these trucks to come through our cities, and along our national wildlife areas. The mission of the Oregon Department of Energy is to safeguard forever the people of Oregon from the dangers of nuclear energy and its sludge. It's in its written mission, and they serve at the pleasure of the people of Oregon. I speak for the otters and the truck drivers whose risks are probably pretty well understood here. A nine year study that scientists are doing on the Columbia River otters years ago was concluded early because the high, very, very high incidents of deformation for reproductive systems in the otters of the Columbia River this is long ago and it's one of the direct results of the leeching into the Columbia River that was happening in the 1980s before I even spoke with Senator Ron Wyden. They haven't stopped. I agree with everyone here. Hanford must be cleaned up and no more sludge coming to that area. We must have extreme oversight in this process and not just trust the contractors, especially the big bosses who will try to crush the whistleblowers. I want to blow the whistle now for those truck drivers who you might consign to their death if you cooperate with this crazy plan. I'm Julie Mikalson and I have a lot more to say, but I think everyone else has done a great job.	

Commenter	Unit Group	Comment	Comment Response
Julie Somersgulsvig	General	Keep Hanford Closed! It needs to be cleaned up, not further polluted. It is far too dangerous to transport waste across state lines, and for too long we have ignored the obvious--we don't know how to handle the dangers inherent in nuclear energy.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Karen Stocker	General	Hello, I'm Karen, from Seattle. I attended much of the Hanford hearing last month in Seattle. I wanted to make my formal comment that night but was too filled with emotion to take my turn speaking. I finally collected my thoughts on Memorial Day and submit them in writing here: My comment is personal, about people. Regarding the Permit, and regarding safety, I'd like to ask that you please be sure that you tell the real, true story of what's really happening, nothing short of the actual truth you know to be true. And I'd like to ask that you please do what really works, nothing less. I wanted to tell you about my friend I met four years ago. He joined the National Guard out of Bellingham at 19, eager to help, ready to give his life. By the age of 27 he had been to Iraq as a combat medic, and back, returning with inner wounding beyond description, returning in a kind of hell, then finally, after a terrible heroic journey, beginning to find the beginning of healing, and then month after month spending his own Disability benefit to offer workshops to other Veterans, work he continues to this day. Just this past year, with joy that's a great joy to witness, he found a home for himself and his dear young wife and heart companion, a beautiful place with land to plant a garden. Now when we talk by phone, I get to hear about the next conference or workshop these two beautiful young people, brilliant, tireless workers, are participating in or creating; the next close call they've had with the kind of post traumatic occurrences that drive some Veterans to desperate acts but drive my friend to increased depth of service; AND the next evolution of their beloved vegetables and flowers. It is a deep pleasure and relief to see them 'nest', after all they have been through. If only all our returning Veterans could find their way to this kind of life path. How does this story relate to the Permit? Well, the home and little piece of land they just bought are in Richland. These two have joyfully rolled up their sleeves and gone right to work cultivating friendships with their	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. We agree that Hanford must be regulated and cleaned up to ensure the community and its residents are protected.

Commenter	Unit Group	Comment	Comment Response
		neighbors, offering their service in the community, turning the soil, watering the land, tending their garden in Richland. This is why I went to the Hearing, and why I am writing to you. I'm guessing that as you heard about these two, you also began to love them, and treasure them. So I know you understand that the land they plant must not contain invisible danger. The community to which they devote their precious fresh energies must not be doomed; the baby we would wish for them if the time becomes right, must not be conceived under treacherous, invisibly toxic circumstances. These two need to know the truth about the place where they live. Be sure you tell the truth! And they need you to do the right thing. Be sure to do the right thing! Please also remember that my young friend is National Guard and offered his life to protect others. He and his wife could never be content to be safe on their land if nearby First Nations children were in harm's way, workers suffering, neighbors becoming mysteriously ill. Please remember all these people as if they were your own when you make your decisions about the Permit. with respect, gratitude and best wishes, Karen Stocker, Seattle	

Commenter	Unit Group	Comment	Comment Response
Karen Stocker	General	See attached Dear Governor Gregoire and Washington Dept. of Ecology, Hello, I'm Karen, from Seattle. I attended much of the Hanford hearing in the summer here in Seattle, and would like to submit my formal comment on the topic of the Permit under discussion. My comment is personal. It's about people. I finally wrote it on Memorial Day: Regarding Hanford, I'd like to ask that you please be sure to tell the real, true story of what's really happening, nothing short of the actual truth you know to be true. And regarding safety, I'd like to ask that you please do what really works, nothing less. I will tell you about my friend I met four years ago. He joined the National Guard out of Bellingham at 19, eager to help and ready to give his life. By the age of 27 he had been to Iraq as a combat medic, and back, returning with inner wounding beyond description, returning in a kind of hell, then finally, after a terrible heroic journey, beginning to find the beginning of healing, and then month after month spending his own Disability benefit to offer workshops to other Veterans, work he continues to this day. Just this past year, with joy that's a great joy to witness, he found a home for himself and his dear young wife and heart companion, a beautiful place with land to plant a garden. Now when we talk by phone, I get to hear about the next conference or workshop these two beautiful young people -- brilliant, tireless workers -- are participating in or creating; the next close call they've had with the kind of post traumatic occurrences that drive some Veterans to desperate acts but drive my friend to increased depth of service; AND the next evolution of their beloved vegetables and flowers. It is a deep pleasure and relief to see them 'nest', after all they have been through. If only all our returning Veterans could find their way to this kind of life path. How does this story relate to the Permit? Well, the home and little piece of land they just bought are in Tri-cities. These two have joyfully rolled up their sleeves and gone right to work cultivating friendships with their neighbors, offering their service in the community, turning the soil, watering the land, tending their garden in Pasco. This is why I went to the Hearing, and why I am writing to you. I'm	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. We agree that Hanford must be regulated and cleaned up to ensure the community and its residents are protected.

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		guessing that as you heard about these two, you also began to love them, and treasure them. So I know you understand that the land they plant must not contain invisible danger. The community to which they devote their precious fresh energies must not be doomed; the baby we would wish for them if the time becomes right, must not be conceived under treacherous, invisibly toxic circumstances. These two need to know the truth about the place where they live. Be sure you tell the truth! And they need you to do the right thing. Be sure to do the right thing! Please also remember that my young friend is National Guard and offered his life to protect others. He and his wife could never be content to be safe on their land if nearby First Nations children were in harm's way, workers suffering, neighbors becoming mysteriously ill. Please remember all these people as if they were your own when you make your decisions about the Permit. with respect, gratitude and best wishes, Karen Stocker, Seattle	

Commenter	Unit Group	Comment	Comment Response
Karin Engstrom	General	This state cannot authorize a permit without a complete review and revision of the EIS. The following are my reasons: 1. Federal agencies are required by law to revisit their studies every 5-10 years. Sixteen years is too long a time. 2. Certainly our planet is going through many changes since the last EIS. I believe the Pacific Rim is experiencing more intense earthquakes, Mt. St. Helens keeps rumbling and I've been told Mt. Rainier is just waiting. Those are big events, but unusual rain fall can be as devastating to this area. 3. Governor Gregoire and Attorney General McKenna wrote Secretary Chu in August about the October 2010 Consent Decree signed in federal court because the DOE had not met deadlines or in reality communicated with the state about not fulfilling stipulated requirements in that decree. The copy of the letter and explanation were sent by your offices. Have they answered the letter? 4. The existing permit has undergone and continues to have multiple modifications. I receive many announcements from the Department of Energy and Washington State Department of Ecology for actions that affect and change the permit. I just received the Quarterly Notice from the DOE this morning. 5. The DOE just closed comment on the conveyance of land from the Hanford site to industrial interests in the area. How does that impact the permit? 6. There are bills to make the area now protected as a Historical National Park. How will that affect the clean up operation? 7. There will be additional nuclear waste brought to Hanford by the Navy when they decommission the USS Enterprise starting in 2013. This will be stored in open trenches and their documents do not reflect a cumulative impact as far as I can see. Just the transport concerns me. 8. There have been years of contamination from leaking tanks and other activities that need an overall study. I know the tracking of contamination is being done, but it isn't solving the problem. Every public meeting I have attended in the past 2 to 3 years (if not more) always show multiple maps but never an overlay of the various contaminants in relationship to their depth reaching the ground water. Drives me crazy! I want to see	We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has expanded upon the SEPA Determination in accordance with WAC 197-11. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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		one map that clearly visualizes relationships. 9. What are the consequences of off-site clean up activities? There are businesses who take the waste to process and where does that go? 10. There are leaking tanks. Dr. Edward Siegel attended the September hearing with good information on how the tanks need to be built. I don't need to be a scientist to know that this stuff eats through everything and any design that could help prevent further leakages would be valuable as well as a better investment of our tax dollars. I believe he came a long way to give testimony. He may be a bit wonky, but worth listening to. There was no environmental study required when the federal government came to take the land, yet the people in charge, both military and scientist, knew many of the risks and did take precautions and kept diligent records. Nevertheless, they never projected how many reactors and facilities would be built in the future to expand the contamination. The clean-up effort has bungled along making huge mistakes in design and judgment, as well. I don't think we need to continue the story in this way. I think we need to stop to really study the area in relationship to the permit on disposal of the hazardous waste.	
Karin Engstrom	General	I have a Masters in Whole Systems Design and I think in those terms about consequences and relationships. And that is what a SEPA is all about and that's why I'm asking you to revisit and keep open your study of what the consequences are for all these different plans. I'm on the mailing list for DOE and for you, and there are constant new proposals and studies and this kind of thing, it goes on and on without having this overview that this -- this area of land is just a part of a whole large piece of the northwest and the Cascadias, and all of the things that happened under the earth that we may have another -- a volcano erupt, one of them, earthquakes, all kinds, and then climate change and the rains. So, this has to almost be an open document to deal with what is going on at Hanford and how you're cleaning it up. I've spent the summer reading the history of Hanford and going over there	Ecology encourages public information and involvement in the cleanup of the Hanford Site. We agree that members of the public should have the opportunity to receive information about Hanford and become involved. Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
		and talking with people who work there and [?you 24:26] have you take that into consideration that people made their living and felt devoted, as you do, about your job and what you are doing. But, the scientists knew, they knew what the consequences were and here we are, years and years later, still trying to figure out how to clean it all up. So, I ask that you reopen the SEPA and continue to do that study as an open document and you need to do that. Now, my real concern is if you look through the room, I mean, I'm probably one of the older people here at 71, but -- which I would have never believed I was ever going to get old. [Laughter] It's weird. But, I don't see any young people here except our law student, and so, I really feel that you need to partner with other departments in the state, particularly OSPI, to make this a part of the educational system for our young people to know they are inheriting this and they've got to know the history, they've got to know what the feel of that land is. I know that they offer visits to the Hanford B reactor, which I saw this summer, but there needs to be more emphasis on this throughout the state. This isn't just Richland. This is us in Seattle. It's people over in Port Angeles. It's everywhere, that this particular activity has affected the whole state and -- or the state of Oregon, health-wise and everything else. So, I ask that you do -- you initiate or do something with the -- educate our young people and get them engaged in this because -- I'm going to tell you, I work with young people, they have better answers that we will ever have, and ideas, and bright -- and the universities as well. So, please do that.	

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Karin Engstrom	General	Thank you for extending the comment period time and for the hearing on September 19th. This permit is complex and not easy to fully comprehend as a citizen. I have spent years reading Land Management Plans from all of the California National Forests as well as here in Washington. I've participated and researched administrative appeals and law suits. I am not new at citizen involvement in government decisions. The "scientific" is always noted as "holy"; however, in this case, the "scientists" are the ones who made a big mess. When I received the notice in April 2012 of this comment period, I determined to learn more about Hanford and its history. Since April, I've done a considerable amount of reading as well as participated on a visit to the Hanford-B Reactor. During my visit to Richmond, I talked with many people who live in nearby communities and worked at Hanford. I visited the Museum in Richland. I read books by people who were directly involved with Hanford's purpose in the early 1940's as well as those who grew up in the area. My strengths of understanding come from the visual and auditory. I will return to gain a stronger sense of place for this area that has been, in a sense, abused. Here is Washington State's opportunity to stand up and do the right thing. This state cannot authorize a permit without a complete review and revision of the EIS. The following are my reasons: 1. Federal agencies are required by law to revisit their studies every 5-10 years. Sixteen years is too long a time. 2. Certainly our planet is going through many changes since the last EIS. I believe the Pacific Rim is experiencing more intense earthquakes, Mt. St. Helens keeps rumbling and I've been told Mt. Rainier is just waiting. Those are big events, but unusual rain fall can be as devastating to this area. 3. Governor Gregoire and Attorney General McKenna wrote Secretary Chu in August about the October 2010 Consent Decree signed in federal court	We agree, permits should be renewed every ten years and we are looking forward to completing this permit renewal. We remain committed to overseeing the cleanup of the Hanford Site. Ecology provided a SEPA determination for Rev. 9 in 2012. SSTs received a Determination of Significance and Adoption of the TWRS EIS for the Rev. 9 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.

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		because the DOE had not met deadlines or in reality communicated with the state about not fulfilling stipulated requirements in that decree. The copy of the letter and explanation were sent by your offices. Have they answered the letter? 4. The existing permit has undergone and continues to have multiple modifications. I receive many announcements from the Department of Energy and Washington State Department of Ecology for actions that affect and change the permit. I just received the Quarterly Notice from the DOE this morning. 5. The DOE just closed comment on the conveyance of land from the Hanford site to industrial interests in the area. How does that impact the permit? 6. There are bills to make the area now protected as a Historical National Park. How will that affect the clean up operation? 7. There will be additional nuclear waste brought to Hanford by the Navy when they decommission the USS Enterprise starting in 2013. This will be stored in open trenches and their documents do not reflect a cumulative impact as far as I can see. Just the transport concerns me. 8. There have been years of contamination from leaking tanks and other activities that need an overall study. I know the tracking of contamination is being done, but it isn't solving the problem. Every public meeting I have attended in the past 2 to 3 years (if not more) always show multiple maps but never an overlay of the various contaminants in relationship to their depth reaching the ground water. Drives me crazy! I want to see one map that clearly visualizes relationships. 9. What are the consequences of off-site clean up activities? There are businesses who take the waste to process and where does that go? 10. There are leaking tanks. Dr. Edward Siegel attended the September hearing with good information on how the tanks need to be built. I don't	

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		need to be a scientist to know that this stuff eats through everything and any design that could help prevent further leakages would be valuable as well as a better investment of our tax dollars. I believe he came a long way to give testimony. He may be a bit wonky, but worth listening to. There was no environmental study required when the federal government came to take the land, yet the people in charge, both military and scientist, knew many of the risks and did take precautions and kept diligent records. Nevertheless, they never projected how many reactors and facilities would be built in the future to expand the contamination. The clean-up effort has bungled along making huge mistakes in design and judgment, as well. I don't think we need to continue the story in this way. I think we need to stop to really study the area in relationship to the permit on disposal of the hazardous waste. Cost is always a factor, but Congress needs to come up with the money. They seem to for all the other federal agencies. Thank you for this opportunity to comment and I ask that my letter be made a part of the record. Your consideration of my thoughts are appreciated. Ever onward!	

Commenter	Unit Group	Comment	Comment Response
Kathleen Fitzgerald	General	Dearest parties concerned, The regulating permit that is being presented should require the Governor of Washington to honor his commitment to add no more waste to Handford until all other waste has been removed, cleaned up and is stored properly with no leaks, all piping repaired and all waste tanks cleaned out. ... The permit should clearly state that all regulatory action and monitoring be extensively performed on all levels. ... Many Blessings, Kathleen Fitzgerald	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Kathleen Fitzgerald	General	Also, I do not approve of any trucking of hazardous wastes through Portland or Spokane. It is unsafe and unwise. Why does money always stop a man from living in integrity? Please, please do what is right.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Kathleen Fitzgerald	General	Clean up all unlined ditches that are at the Hanford site. All 40 miles of these ditches.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Kathleen Fitzgerald	General	Also, I do not approve of any trucking of hazardous wastes through Portland or Spokane. It is unsafe and unwise. Why does money always stop a man from living in integrity? Please, please do what is right.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

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Kathryn Roberg	General	This information of having 30,000 more trucks of waste is outrageous!!!! I was born in Washington, and love this state. I am now living in Wisconsin, and long to return to the most beautiful state in the union. Please do all you can to preserve this land of breath-taking beauty! Now only the beauty but primarily the people living there will be infected....Only we can preserve this land given to us! Thanks for really listening!	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Kathryn Shuman	General	The State of Washington must use all authority, policy and procedures available to prevent any and all new hazardous waste from being deposited at any site, new or old at Hanford. The US government must clean up wastes already at Hanford as soon as possible.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Kathryn Shuman	General	This cleanup must be in keeping with Washington State Hazardous Waste laws, and leave Hanford 100% free of untreated waste. A strict time schedule should be established and enforced. Once this clean-up has been completed and a comprehensive monitoring program put in place to test that the clean-up has been effective and there is no leakage of hazardous material of any kind into soil, water or air, Washington State should consider it's next steps. But until that time, all focus must be on clean up.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Kay Cumbow	WTP	I urge the Dept. of Ecology to give the public a 60 day comment period for any changes to the final EIS. The DOE has already made changes to one of the preferred alternatives in the EIS (which had been to vitrify the WTP?s low-activity waste stream to open up the possibility for less-robust waste forms.) It's very possible that other critical changes may be made to the Final EIS and the public will have little or no time to read and comment on them before the comment period ends. This is an especially valid request with both Thanksgiving and Christmas holidays coming on, where family commitments are considerable.	Ecology agrees with this comment that public members have sufficient time to review the draft document for any substantial change to the final EIS.

Commenter	Unit Group	Comment	Comment Response
Kay Cumbow	General	I add my voice to the large number of people that call for a state ban on the import of mixed wastes to the Hanford Site. Pacific Northwest residents oppose importing new nuclear waste into Hanford, and the Dept. of Ecology should use all of its authority to prevent new waste imports. I urge you to add a condition in the Parts I and II General Conditions of the Site-Wide Permit to ban the import of mixed waste to the Hanford Site.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Kay Cumbow	SST	Plans should be made to add new tank capacity for likely leaks from single- and double-shelled tanks on the Hanford site. The new permit should include triggers for determining when new tanks will be necessary to deal with leaky tanks. Continual leak detection monitoring should be required for the 28 double shell tanks - including/revising a condition in the Part III Operating Units, Double Shell Tanks Unit, to require continual leak detection monitoring for these 28 Double Shell Tanks.	The Hanford Federal Facility Agreement and Consent Order (HFFACO), Appendix I, requires the Permittees demonstrate achievability of waste. The Permittees will remove as much waste as possible and Ecology will work with them to determine the percentage of residual waste may be left in the tank. The SST System has been determined to be closed as landfill, therefore the Permittees will close the SST System in accordance with WAC 173-303-640(8). The Double-Shell tanks have leak detection equipment within the annulus that is continuously monitored for all of the tanks. Ecology will work with the Permittees if a new DST is required. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.
Kay Cumbow	DST	Therefore, prevention of leaks save not only greater future remediation costs to clean up those leaks, but also prevents considerable risk to workers and the environment. This is a critical consideration, since one of Hanford's large double-shelled tanks (AY-102) may be leaking. Contingency plans should be developed and in place for future possible leaks from all radioactive waste storage tanks. The people and ecosystem near Hanford have suffered enough radioactive contamination. Please assure as best you can that Hanford's wastes are safe and secure and then cleaned up before even considering bringing more dangerous radioactive wastes to the site. Please see that the U.S. DOE takes responsibility in the present to protect the future health of the people and the Columbia River watershed and ecosystem. Thank you.	Leak prevention relates to tank system integrity, which for DSTs is governed by permit conditions III.12.K.4. Leak detection for DSTs is governed by permit conditions including III.12.K.7 and III.12.K.9. Preparedness for a leak in DSTs is governed by permit conditions III.12.K.8. Response to a leak in DSTs is governed by permit conditions III.12.K.8 and the contingency plan Addendum J. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.

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Kay Cumbow	General	As a U.S. citizen and taxpayer, I am speechless that the dangerous radioactive wastes at Hanford have yet to fully cleaned up and that nearby and downstream communities still have to worry about the possibility of further contamination of the Columbia River watershed. The Department of Energy programs, including the many years of nuclear weapons production programs, have left Hanford the most contaminated radioactive waste site in the Western hemisphere, (as well as contaminating many other former or current weapons production sites and their watersheds.) U.S. taxpayers also foot the bill for the enormous clean up costs of these nuclear-contaminated sites. I live in Michigan and know that radioactive wastes are no respecter of borders, whether they are state lines or borders of countries. Radioactive contamination is carried by air and water currents, and can and do reach around the globe. Many radionuclides bioaccumulate and many of those radionuclides bioconcentrate in the food chain, of which human beings are part and parcel of. Furthermore, many of the radionuclides found in Hanford's waste storage areas are highly radioactive and some are extremely long-lived. It behooves the state of Washington's Department of Ecology to do all they can to see that the U.S. DOE protects the people, the watershed and ecosystem from any further contamination from the dangerous radioactive wastes that are stored at Hanford.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Kelly Caldwell	General	The proposal to transport 20,000-30,000 truckloads of nuclear waste to Hanford is unacceptable due to health and environmental risks. The USDOE estimated that trucks transporting similarly radioactive wastes on Northwest roads to Hanford would cause over 800 adults to die from cancer from the high levels of radiation emitted - and this is with no accidents! It is likely that these risks have been underestimated! If a spill were to occur our transportation corridors could be permanently compromised, and our communities affected in disastrous ways.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Kelly Caldwell	General	It is bad enough already that miles of unlined trenches at Hanford contain mixed radioactive wastes and toxic chemicals leaking towards our water tables and the Columbia River every day. Plutonium, Cesium and chemical wastes should be dug up and removed from soil, not landfilled. The status quo at Hanford is illegal and unacceptable. Our priorities should be on addressing the current health and safety issues at Hanford, not on generating or bringing in additional radioactive waste.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. No decision has been made to cover-up billions of gallons of discharges from high level nuclear waste tanks. The RCRA Permit Single-Shell Tank Closure Unit Group, Section V.4.D, requires USDOE to conduct corrective actions for the discharges. A draft Ecology decision on those corrective actions will be subject to public comment before Ecology makes its final decision.

Commenter	Unit Group	Comment	Comment Response
Kelly Nokes	General	I want to start off by thanking everyone for taking the time out of their busy schedules to attend tonight's meeting. Public participation is critical to ensuring a long-term solution to Hanford cleanup and we truly appreciate that so many of you decided to attend tonight's hearing. Columbia Riverkeeper is a nonprofit organization with thousands of members in Oregon and Washington. Our mission is to protect and restore the Columbia River from the headwaters to the Pacific Ocean. Since 1989, Riverkeeper has played an active role in monitoring and improving cleanup activities at Hanford. Every summer for the past four years, I've led dozens of people on incredible kayak trips down the Hanford Reach of the Columbia River spending time on the Hanford Reach of the Columbia is a reminder of the incredible responsibility we have to future generations to ensure that the federal government lives up to its responsibility to protect the people of the northwest and the Columbia from Hanford's nuclear legacy. As many of you know, Hanford's legacy is not a local issue. Nuclear contamination from Hanford threatens the Pacific Northwest's people, a world-renowned salmon fishery, as well as countless other cultural and natural resources. The State of Washington must take full advantage of the opportunities to protect the Columbia when it issues the long delayed dangerous waste permit for Hanford. Riverkeeper will be submitting detailed written comments on Ecology's draft permit, as well as providing input as a member of the Hanford Advisory Board. I would also encourage members of the public to visit our website to learn more about the permit and how they can weigh in. In the short time remaining, Columbia Riverkeeper offers the following comments on the draft dangerous waste permit. First, Ecology should use its full authority to prevent the import of offsite mixed radioactive and hazardous waste to Hanford. Shipping more offsite waste to Hanford conflicts with common sense and the U.S. Department of Energy's own scientific review. Second, Ecology should require the removal of thousands of untested waste drums in the central waste complex. Currently, the Department of Energy illegally stores thousands of untested waste drums in the central complex. The new state permit fails to do enough to ensure waste is removed and treated on a reasonable schedule. I'll leave it at that because my time is up, but we will be submitting more detailed comments written.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	The Washington Administrative Code (WAC) provides broad authority to the Director of the Department of Ecology in setting facility-specific Permit conditions. WAC 173-303-815 (2)(b)(ii) states that “Each permit issued under this chapter must contain terms and conditions as the director determines necessary to protect human health and the environment.” Many of our recommendations for Permit conditions are based upon this authority and what we consider as necessary to protect human health and the environment.	Ecology worked to update standard conditions and facility-specific permit conditions to ensure enforceable language is included in the Parts I and II Conditions and within each unit group. the standard conditions are consistent with Washington State permit conditions.
Ken Niles	General	Oregon is concerned by repeated references in the Permit where Ecology seemingly yields its authority to either the U.S. Environmental Protection Agency (EPA) via CERCLA actions, or more troubling, yields authority to the regulated entities at Hanford, the U.S. Department of Energy (DOE) or its contractors. Oregon recommends that Ecology more clearly and explicitly state and exercise its Resource Conservation and Recovery Act (RCRA) authority in the Permit. 2. In addition, Oregon recommends that language in the Permit be more prescriptive when referencing Permit conditions and that enforceable words such as “shall” and “must” be used.	In order to meet the state's regulatory requirements for corrective action (WAC 173-303-64620), the cleanup action that is under CERCLA authority must meet all applicable, relevant and appropriate requirements (ARARs) stated in the CERCLA Record of Decision. These requirements include that the final action cleanup must not exceed the State’s total risk of 1 x 10-5 and hazardous Index (HI) = 1 (WAC 173-340). If Ecology concludes that the ROD can’t meet the requirements, then Ecology may impose corrective action requirements through the permit modification process (permit condition II.Y.2.a.iii). DOE may appeal the state’s application of permit requirements in addition to the ROD requirements. For closure, the closure performance standard is established in the closure plan. These will typically also be the total risk of 1 x 10-5 and hazardous Index (HI) = 1 for clean closure. The state does have the option of establishing alternative requirements however, certain threshold criteria have to be met in order to use alternative requirements. Further, the alternative requirements must be established in an enforceable document. The state would not yield authority to either the EPA nor to DOE for closure using alternative requirements, given that the requirements would be established in an enforceable document.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	The Permit cites many external documents and processes as Permit conditions. These are sometimes difficult to access. We are concerned that documents linked to the Permit may undergo significant change – impacting conditions within the Permit – without ample opportunity for public review and comment. • Oregon recommends that specific Permit conditions be explicitly spelled out within the Permit instead of being referenced as a part of a separate plan, agreement, or supporting regulation. • Oregon recommends that Ecology provide permanent links to all citations for external documents, either as appendices to the Permit or on Washington State servers. This is both to allow easy access to the references and to make that access permanent. Many of the references are to documents that are either hard to find or cannot be readily located electronically. • If Ecology incorporates external documents or processes as Permit conditions, Oregon recommends that those external processes and documents be subject to the same degree of public review and comment as required for RCRA permit review. For example, if a change were made in the RCRA permit that would require public review and comment, then any change in a relevant, cited document/process needs to also require a similar level of public review. Likewise, we recommend that the Permit not include reference to existing DOE/contractor documents that have not been subject to public review and comment.	Documents and Tri-Party Agreement are referenced within Addenda or Permit Conditions and have citations and are linked when possible. If there are no links available for a document, a request for the document can be made by contacting the Ecology Office through a Records Request.
Ken Niles	WTP	We were also troubled by the limited release of some portions of the Permit. Oregon was forced to formally request materials and drawings for the Waste Treatment Plant (WTP) portion of the Permit. We do not understand why that information was not made available to the public. Similarly, drawings for the Integrated Disposal Facility were not provided with the requested electronic draft of the Plan. Oregon recommends that Ecology make all portions of the Permit (drawings included) publicly accessible electronically, unless a specific legal exemption applies (such as proprietary information).	Ecology works with the Permittees to ensure that documents are provided for public review in a manner that is easy to review and understand. Some documents are not available on the internet for security reasons. All documents are available at Ecology's office in Richland, Washington.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	Off-Site Waste There has been an incredible amount of concern expressed in recent years throughout the region over proposals to bring additional waste to Hanford for disposal. Some of the proposals would bring potentially significant volumes of highly radioactive waste to Hanford. Like others throughout the region, Oregon opposes these proposals. Safely managing the wastes that are already on site is a significant challenge in and of itself and DOE predicts long-term impacts to groundwater due to the existing waste volumes already disposed at Hanford. Those impacts could be substantially exacerbated by disposal of additional off-site waste. During our meeting with Ecology staff on July 25, 2012, Oregon staff was told that off-site waste issues cannot be banned directly in the Permit, primarily because of the state's inability to regulate waste that is radioactive only. We were further told that Permit conditions do limit the type of waste that can be disposed in the Integrated Disposal Facility and in the mixed waste trenches, and that to modify these conditions and import waste from off-site would require a Permit modification and a public review and comment process. Oregon strongly encourages Ecology to exercise its authority – either through the Permit or through other means – to ensure that large volumes of waste do not come to Hanford for disposal. Doing so by specifying the allowed waste in each unit is an artful way to accomplish that goal, which also preserves the public's ability to comment and intervene if DOE requests to add other wastes. We recognize that there are some limited waste streams, including Navy reactor compartments, which are currently allowed to come to Hanford. We do not oppose these limited waste streams because of their limited impacts.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	LLBG Green Islands	Low-Level Burial Grounds, Used Trenches, "Green Islands" Closure Unit Group 26 (CUG-26) Oregon recognizes that because much of the waste disposal into Hanford's burial grounds occurred prior to the passage of RCRA (as well as prior to the delegation of RCRA authority to the State of Washington), that Ecology's authority over these burial grounds is somewhat limited. The Hanford Advisory Board has advised Ecology to seek direct delegation of authority from EPA for state application of RCRA for the period of 1976 to 1987. While we are supportive of that request, our concern is not so much with what agency regulates these burial grounds; we simply want to ensure that sufficient characterization and investigation occurs throughout the entire burial grounds to fully understand where the mobile and long-lived contaminants reside, so that informed decisions can be made about the level of risk posed by these wastes. Acceptable methods to mitigate that risk can then be determined. Oregon recommends that Ecology work with EPA to ensure that is the case.	The draft permit addressed your concern "that sufficient characterization and investigation occurs throughout the entire burial grounds to fully understand where the mobile and long-lived contaminants reside." Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Ken Niles	WTP	Groundwater Operable Units Oregon recommends that Ecology include a Permit condition for the WTP that requires planning for a groundwater monitoring system to insure there is proper placement of monitoring wells with respect to plant facilities that are more susceptible to leakage or that hold more risk due to the materials they would handle. Ecology may want to designate specific monitoring well locations to ensure sufficient coverage within the WTP complex.	WTP complies with Permit Condition II.F and WAC 173-303-645. Due to the facility design, a groundwater monitoring program is not required.
Ken Niles	General	Oregon recommends that Ecology include a Permit condition(s) that ensures full characterization of both the vertical and horizontal extent of groundwater contamination. Oregon notes that while the Permit requires "that the Permittee supply a sufficient number of groundwater monitoring wells, and (to) add new wells as necessary to catch contaminant movement in the groundwater and identify compliance status," the number of usable wells on the Central Plateau continues to decrease due to the falling water table. Oregon recommends that Ecology include a Permit condition to require additional wells be located and installed with respect to the thickest	The point of compliance does require full vertical extent of the aquifer. Should a release from the unit occur, the characterization activities conducted under the RCRA Facility Investigation the main purpose is to define the nature and extent of contamination, both in the soils and groundwater. This is not a part of groundwater monitoring. Ecology uses the TPA milestone series M-24 to ensure that a sufficient number of monitoring wells be sited. A permit condition would be redundant to the requirement in the M-24 series.

Commenter	Unit Group	Comment	Comment Response
		portions of the remaining wetted section of the aquifer to replace dry wells and fulfill the monitoring requirement for each waste site. The Permit states that “Wells that are no longer sampled due to water table decline (i.e., “dry groundwater monitoring wells”), and for which there is no future use, must be decommissioned. "Given that the falling water table in the Central Plateau is making “wet” monitoring wells harder to find or sustain, Oregon recommends that Ecology include a Permit condition requiring evaluation of using now-dry groundwater monitoring wells for alternative sampling (such as sampling pore water geochemistry, or use of radiological or geophysical methods) in lieu of groundwater sampling. Oregon is also concerned that water has collected in some “dry wells” in the tank farms and that they are not currently usable for gamma logging. Oregon recommends that Ecology write a Permit condition to require pumping water or waste out of “dry wells” to allow their continued use. In addition, Oregon recommends Ecology add a Permit condition to require the routine annual (or more frequent) gamma logging of dry wells to depths greater than 55 feet (past the first wetted zone in the soil, and to the full well depth in most cases), to improve early leak detection of Hanford tanks. Some tank farm dry wells would need to be extended for this purpose. Because of the importance of vadose zone contribution of contaminants to the groundwater now and into the future, Oregon recommends that Ecology include Permit conditions providing for Ecology’s oversight of vadose zone characterization and remediation activities as an important segment of the overall Hanford clean-up. Ecology should include a Permit condition that would require characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the Tank Farms and other important mixed waste sites, to fully understand the current conditions and the fate and transport of contaminants in the vadose zone and their potential impact to groundwater in the future.	Several conditions in the SST part of the permit address use of dry wells (e.g., Condition V.4.E.1.h.ii addresses "Dry Well Logging Data Requirements."). In addition, some of these old groundwater wells need to be replaced or maintenance needs to occur because they present a pathway for contaminants to travel to groundwater. WAC 173-160 requires these wells to be decommissioned. Ongoing soil and groundwater characterization is being conducted in the Tank Farms and other TSD units to fully understand the current conditions and the fate and transport of contaminants in the vadose zone. CERCLA remediation is ongoing to characterize non-TSD waste sites. Under CERCLA Section 121(e)(1) provides that no Federal, state, or local permit shall be required for the portion of any removal or remedial action conducted entirely on-site, where such remedial action is selected and carried out in compliance with Section 121.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	IDF	Oregon recommends that Ecology include a Permit condition that requires the use of a Risk Budget Tool to model the cumulative effects of multiple contaminants to groundwater. The condition should require submittal to Ecology of the parameters that were used in the Risk Budget Tool, and that parameter selection should be subject to the Permit modification process.	The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. This comment was originally responded to in Ecology Publication no. 21-05-021.
Ken Niles	General	Groundwater monitoring plans for the Liquid Effluent Retention Facility, the Integrated Disposal Facility, and the Effluent Treatment Facility are well done and seem to be adequate.	The Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility and Integrated Disposal Facility Groundwater Monitoring Plans were updated to be consistent with the Groundwater Monitoring Plan template and requirements. In addition, the Groundwater Monitoring Plans were updated with the most current unit-specific information.
Ken Niles	SST	Single-Shell Tank System Closure Unit Group 4 (CUG-4) Oregon recommends that Ecology make clear in the “definitions” in the Permit that piping and ancillary equipment that formed part of the tank systems (single-shell tanks, double-shell tanks, miscellaneous tanks, vaults, pits, valve boxes, etc.) are part of the tank system as regulated under RCRA and are part of the tank closure process under RCRA. Oregon recommends that Ecology add a Permit condition requiring removal of near-surface pipelines and noting that demonstration of technical impracticability will not be possible for pipelines. This section is generally well written.	Ecology has worked closely with the permittees to produce Addenda that describe all of the components that are part of the tank systems. The closure addenda of this permit includes information for C Farm and milestones are in place to supply future closure plans for the rest of the WMAs.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	DST	The recent discovery of a potential leak in double-shell tank AY-102 raises a number of concerns that can at least be partially met by specific conditions in the RCRA Permit. Given the delays in getting the WTP operational, and the need for continued reliance on the soundness of the 28 double-shell tanks, the ten year frequency of inspection as spelled out in III.12.K.3.b seems inadequate. Oregon recommends that Ecology write Permit conditions that include a more frequent inspection schedule of the double-shell tanks. Oregon recommends this periodic inspection be no less frequent than every four years for each tank, and more frequent for any tank showing significant issues.	Components of the DST system components are inspected per the schedule in Addendum I with the purpose of early detection of potential structural concerns. Overall system structural integrity is assessed and certified per recommendations of previous IQRPE structural integrity assessment. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.
Ken Niles	DST	The on-going delays in the WTP, and now the possibility of a potential leaking double-shell tank, call into question the adequacy of whether there is sufficient compliant tank space available at Hanford. The limited available double-shell space has impacted the ability to retrieve waste from single-shell tanks for some time. The hope that the WTP could be operational about the time that new double-shell tanks would be available has played a large part (along with funding, certainly) in not moving forward with building new waste storage tanks at Hanford. However, we have now been caught in that dilemma for more than 20 years, and the tanks are that much older. Oregon recommends that Ecology include a Permit condition that requires that no later than December 31, 2019, either hot start of the Waste Treatment Plant has been achieved (which coincides with the date in the Consent Order), or else new double-shell tanks are ready to begin receiving waste. This section is generally well written.	The WTP facilities necessary to begin treating low-activity tank waste were ready to receive tank waste in 2025, in the Direct Feed Low Activity Waste configuration.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	WTP	Oregon and others are concerned that serious technical issues have yet to be resolved at the WTP, including mixing, particle setting, and erosion/corrosion. • Oregon recommends that Ecology include Permit conditions which require DOE to demonstrate that the WTP design is technically functional, especially in the case of technical issues identified by the Defense Nuclear Facility Safety Board and/or by Ecology staff related to: o Mixing (especially for non-Newtonian fluids) o Particle setting (especially for criticality control, but also for heavy metals such as lead, chromium, nickel) o Hydrogen gas generation and deflagration	The phased permitting approach implemented for WTP provided Ecology with the opportunity to review engineering principles and capabilities incorporated into the WTP design before equipment was installed in the facility. These design deliverables included independent corrosion evaluations. The permittees will demonstrate the technically functional elements of the facility via testing and integrity assessments. These design deliverables included independent corrosion evaluations, engineering design and document assessment, Independent Qualified Registered Professional Engineer integrity assessments and Process Flow Diagrams in which Ecology is on review to ensure a complete and accurate permit. As engineering design comes forth for resolution of the issues stated in the comment, Ecology will review and assess the proposed resolution, Ecology will review design media as it relates to the dangerous waste permit. It's Ecology's expectation that the design media will incorporate all updates necessary to resolve issues in accordance with requirements in the dangerous waste permit.
Ken Niles	WTP	Oregon recommends that Ecology include a Permit condition that requires that all engineering drawings included in the Permit be stamped by registered professional engineers as required under the professional standard for engineers.	Agreed, and Ecology requires this information be placed in the WTP Appendices.
Ken Niles	WTP	Oregon recommends that Ecology include a Permit condition to ensure that major control elements (valves, check valves, back pressure valves, over pressure reliefs, relief detection, valve controllers and positioners) are included on process flow diagrams as well as on other engineering drawings. Many of the process flow diagrams appear to be missing essential valves and components, including both physical and control elements.	WTP process flow diagrams comply with the requirements outlined in Permit Condition III.10.E.9.c.ii. Ecology reviews process flow diagrams to ensure they are complete and accurate. Additionally, instrumentation tables are included in the WTP Permit. Many of the instrumentation mentioned in the comment are located on the table. Additionally, the Permittees have submitted Construction Certification packages in support of Permit Condition III.10.C.2.a Ecology reviewed and accepted the Construction Certification packages for the Laboratory, Low-Activity Waste facility and the Effluent Management Facility to support Direct Feed Low-Activity Waste operations.
Ken Niles	WTP	Oregon recommends that Ecology include Permit conditions ensuring header vent designs used in the facility prevent explosive or deflagrative events propagating through systems and leading to wide-scale system failures.	WTP is designed to prevent system failures during operations. The WTP permit chapters describe the established protocols that will be implemented to prevent system failures.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	WTP	The Permit calls for the plant to be clean closed, however the vessel designs appear not to provide an easy way to accomplish this. Oregon recommends that Ecology include Permit conditions, wherever possible, to require that plant systems be designed to facilitate clean closure.	Closure performance requirements are identified in WTP DWP Chapter 11, Closure Plan.
Ken Niles	WTP	At Hanford and at the Idaho National Laboratory, prior operations of the canyon facilities resulted in emission of nitrogen oxides at levels above human health standards. Under some weather conditions (not easily represented in standard atmospheric dispersion models), these emissions from the stacks form long regularly undulating plumes that undergo little mixing or dispersion and slowly descend until they contact the ground surface sometimes many miles from the point of release. Oregon recommends that Ecology include Permit conditions that require pollutant concentrations from the stack exhaust to meet human health exposure criteria at the point of release.	Emission standards and criteria for ensuring protection of human health and the environment, while operating the facility, is described throughout the WTP Dangerous Waste Permit and the Clean Air Permit. Additionally, information is included in the Risk Assessment to address emissions.
Ken Niles	WTP	Oregon recommends that Ecology include Permit conditions to require equivalent capabilities and procedures for each train of equipment whenever/wherever multiple parallel trains exist in a WTP facility. If dissimilar equipment is allowed in parallel trains, plant operations and training issues become more complex and the potential for mistakes and violations increases dramatically.	The WTP Permit contains permit conditions and an interim compliance schedule that provides Ecology with the opportunity to review and comment on the WTP design to ensure consistency in facility design and operations; and that personnel receive the training required to manage dangerous waste operations. USDOE submitted and Ecology reviewed and approved the Dangerous Waste Training Plan, Chapter 7.0 to ensure proper training is required for workers at the WTP Facility. Additionally, Ecology reviews applicable engineering media to ensure the design is in accordance with dangerous waste regulations.
Ken Niles	WTP	Oregon recommends that Ecology include Permit conditions that require Independently Qualified Registered Professional Engineer evaluations for piping to include assessments of internal corrosion and erosion as well as external galvanic corrosion.	The WTP Permit Condition III.10.E.3.e requires Independent Qualified Registered Professional Engineer corrosion evaluations for piping. Those evaluations are maintained in the unit specific operating record and WTP appendices.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	WTP	Oregon recommends that Ecology include a Permit condition that requires comprehensive galvanic, cathodic and other corrosion protection for buried piping, interplant connected systems, and in facilities to ensure that vessels, hangers, wiring, wire trays and other components are protected from various forms of corrosion	The WTP Permit Condition III.10.E.3.e requires Independent Qualified Registered Professional Engineer corrosion evaluations for piping. Those evaluations are maintained in the unit specific operating record and WTP appendices.
Ken Niles	PUREX	The PUREX tunnels are detailed in Hanford reports as mixed-waste storage units. Oregon recommends that Ecology include Permit conditions that require the characterization and treatment of mixed-wastes in the PUREX tunnels and proper disposal of the treated waste in licensed, lined, compliant disposal facilities	In 1992, Congress passed the Federal Facility Compliance Act (FFCA). Among other things, it drives USDOE facilities like Hanford to address their backlogs of untreated mixed waste. The FFCA required USDOE to develop plans and schedules for developing “treatment capacities and technologies” to address mixed waste backlogs via a “site treatment plan.” So long as USDOE complies with an approved plan, it will not be subject to fines or penalties for storage prohibition violations. At Hanford, the Tri-Party Agreement (TPA) satisfies the site treatment plan requirement. The wastes currently stored in the PUREX Tunnels are stored in a safe and compliant manner according to both the requirements of the permit and the Department of Energy's own requirements for the safe management of radioactive waste. Due to the highly radioactive nature of the wastes, more harm to human health and the environment would potentially occur by characterizing the waste in more detail or placing secondary containment and leak detection. After the 2017 collapse of Tunnel 1, the waste that remained in both tunnels was grouted in place to prevent any possible exposure. The waste will remain grouted in place until final closure is determined. Similarly, lead will be managed according to the requirements of the LDR report. Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the FFCA and the TPA.
Ken Niles	PUREX	DOE used massive quantities of lead at Hanford for shielding at PUREX and elsewhere. This lead poses a recognized long-term threat to the environment. Oregon recommends that Ecology include Permit conditions for the treatment of this lead in accordance with land disposal requirements and restrictions.	Large quantities of lead were used for shielding in the PUREX Canyon. The lead shielding was moved to the PUREX Tunnels until a future disposition option could be decided on per the site treatment plan. At Hanford, the Tri-Party Agreement (TPA) satisfies the site treatment plan requirement. The lead currently stored in the PUREX Tunnels is stored in a safe and compliant manner according to the requirements of the permit. Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the Permit, the FFCA, and the TPA.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	Oregon recommends deletion from the Permit of all references to disposal of waste into the Integrated Disposal Facility from the Demonstration Bulk Vitrification System. Bulk vitrification has not been proven to be an effective method of immobilizing Hanford tank waste.	Ecology originally responded to each comment associated with IDF Revision 9 through Ecology Publication No. 21-05-021 during the Revision 8C Class 3 Permit Modifications 8C.2020.1D and 8C.2022.2D. If the publication is no longer available on Ecology's website at ecy.wa.gov, Ecology can make the documents available to you by request at 509-372-7950.
Ken Niles	WESF	Recent analyses suggests that concrete in the WESF storage pool may have become embrittled by long-term exposure to high gamma radiation. Oregon recommends that Ecology include specific and detailed Permit conditions requiring annual physical assessment of the soundness of this facility. Because the radiation damage to concrete was not anticipated at WESF and not included in the design basis for the facility, it seems likely that this is a generic concern. Oregon recommends that Ecology include Permit conditions to evaluate all other facilities with high radiation doses and/or high temperatures that may impact the structural capability of concrete. The first evaluation should be completed within two years (specifically including single shell tanks, double shell tanks, and the canister storage building).	Comment responded to in Ecology Publication no. 20-05-022 (Comment #497): WESF is managed as a Hazard Category 2 Nuclear Facility by DOE. As such, a rigorous safety evaluation of various accident scenarios, including structural integrity of the facility, is performed and approved by the DOE which allows the facility to operate safely. These safety evaluations are described in three documents as follows: • HNF-8758, “Waste Encapsulation and Storage Facility Documented Safety Analysis” • HNF-8759, “Waste Encapsulation and Storage Facility Technical Safety Requirements” • HNF-11724, “CH2M Hill Plateau Remediation Company Safety Management Programs(SMPs)” The procedures in these documents require routine structural evaluations, including concrete degradation due to radiation. It has been determined and certified by a certified licensed engineer that the structural integrity of WESF is not compromised from the radiation exposure. In fact, WESF has been significantly over-designed in terms of concrete thickness needed to store the capsules. Based on the results of these studies, and the fact that similar evaluations are already required to be done on a routine basis, Ecology does not see a need to add permit conditions to address this concern or to evaluate other concrete structures where they may be a similar concern."

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	Oregon recommends rewriting/updating several sections of material for units in the river corridor. Much of the draft text is obsolete – apparently copied from the old Permit – and contains repeated presentations of 1990s-era monitoring data, reference to long-since completed actions in future tense, citation of contractors and their documents that have been long-since replaced, and similar examples. At one level, we can understand inclusion of old plans for post-closure units since those were the plans describing post-closure activities (and might not have changed) and under which post-closure decisions continue to be made, although an explanation of the dated language would be useful. However, inclusion of only pre-2000 monitoring data for post-closure units prevents the use of data to provide insight into the effectiveness of the implemented remedies. Data for these units should be updated or deleted. For closure units, lack of contemporary information (for example, new wells, new monitoring data, newer models and simulation results) seriously compromises the information base upon which decisions are based. This shortcoming might be more perception than reality, since planning under CERCLA is presumably using all available data for these decision units, but the lack of contemporary information is of concern. River corridor closure units that include obsolete language and data in the Permit include: • 1301-N – Addendum D (groundwater), Addendum H (Closure Activities) • 1324-N – Addendum D (groundwater • 1325-N – Addendum D (groundwater) • 183-H – Addendum D (groundwater), Addendum K (Corrective Action Plan)	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. Ecology agrees that parts of the permit are outdated. US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018. The 183-H Post-Closure Unit Group was updated and includes the most current permit information for the Rev. 9A renewal.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	Closure decisions and oversight/monitoring for most units in the river corridor have been delegated to the CERCLA closure process for surrounding decision units. We support this approach as these isolated RCRA units are surrounded by CERCLA sites and it is not practical to try to close these sites, or to evaluate effectiveness of remedies, in isolation. However, at most units in the river corridor, including both post-closure and closure units for which the remedy is considered complete, there is significant residual contamination in the vadose zone and/or groundwater. The quick fact cards acknowledge continuing contamination ("Contamination will persist . . ." (1301-N); "Groundwater contamination in close proximity to the Columbia River is a concern." (300 Area process Trenches)), and while the plans call for continued monitoring of these sites, not all of the plans include a contingency for additional cleanup. Oregon recommends that Ecology include language in the Permit to clearly assert continued authority over management of these sites, including the potential to require additional cleanup should selected remedies, whether carried out under RCRA or CERCLA, prove to be inadequate (for restoration of groundwater as an example).Closure plans for some units reflect decisions based on the 1990s-era data embedded in the plans that should be viewed with considerable skepticism. As examples: • For 1301-N, the closure plan cites a DOE document stating that mercury will not reach groundwater for 1,000 years. • Also for 1301-N, the plan cites an assertion from DOE that there is not lateral movement of metals in the vadose zone. This broad assertion for all metals appears to be based on analysis of one metal (mercury) in one borehole. • At 1324-N/NA, it is asserted that there is no need for a cap. This conclusion is based on a claim that there is no driver for contaminant movement because precipitation will not reach groundwater for 200 years. • The groundwater monitoring plan for 183-H defines a local background concentration for chromium of 122 ug/L. While this might have been the concentration in plumes emanating from 100-D, it is difficult to accept this as a "background" concentration against which treatment effectiveness at the 100-F area can be meaningfully evaluated.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes. For the 1324-N/NA unit a cap may not be necessary if the permittees can demonstrate that an alternative will suffice. The Permittees must comply with the closure and post-closure plan, which includes a stipulation that if any dangerous waste contaminants be left within the soil column above MTCA Method B levels, a landfill cover would need to be designed and constructed over the unit. The permittee can request alternate closure requirements for the 1301-N unit in lieu of a cover, provided that Ecology is in agreement. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. Response to Comments document for the 1301-N and 1325-N comment period: No dangerous waste exists at the 1301-N and 1325-N units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants.

Commenter	Unit Group	Comment	Comment Response
			USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. These units meet the closure performance standards established under WAC 173-303-610. Excavation of the Liquid Waste Disposal Facilities was completed before 2005 with confirmation of the cleanup occurring in 2011. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018. In the current Groundwater Monitoring Plan for 183-H, the concentration limit of total chromium is 48 micrograms/L (same as Cr(VI) under WAC 173-340-720 Method B - Table D-7). The 122 value mentioned in the comment refers to previous 1995 plan for chromium, using 2 upgradient wells to represent background conc. (Section D.2.6). The max. conc. limit has been reduced from 122 to 48 micrograms/L for chromium in groundwater.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	General	Oregon recommends that Ecology re-examine the sparse characterization and monitoring data, underlying assumptions and model outputs that were used in the old closure planning to identify contaminants of concern, develop cleanup plans for these units, and ensure that contemporary cleanup/monitoring plans (under CERCLA) reflect the best available information.	Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes. For the 1324-N/NA unit a cap may not be necessary if the permittees can demonstrate that an alternative will suffice. The Permittees must comply with the closure and post-closure plan, which includes a stipulation that if any dangerous waste contaminants be left within the soil column above MTCA Method B levels, a landfill cover would need to be designed and constructed over the unit. The permittee can request alternate closure requirements for the 1301-N unit in lieu of a cover, provided that Ecology is in agreement. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs.

Commenter	Unit Group	Comment	Comment Response
			The default closure performance standards established under WAC 173303-610 have been met, allowing for “clean closure.” 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. Response to Comments document for the 1301-N and 1325-N comment period: No dangerous waste exists at the 1301-N and 1325-N units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. These units meet the closure performance standards established under WAC 173-303-610. Excavation of the Liquid Waste Disposal Facilities was completed before 2005 with confirmation of the cleanup occurring in 2011. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018. In the current Groundwater Monitoring Plan for 183-H, the concentration limit of total chromium is 48 micrograms/L (same as Cr(VI) under WAC 173-340-720 Method B - Table D-7). The 122 value mentioned in the comment refers to previous 1995 plan for chromium, using 2 upgradient wells to represent background conc. (Section D.2.6). The max. conc. limit has been reduced from 122 to 48 micrograms/L for chromium in groundwater. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	NRDWL	In past comments on DOE's draft closure plan for the Nonradioactive Dangerous Waste Landfill and the Solid Waste Landfill (NRDWL/SWL), Oregon encouraged DOE to commit to extensive long-term instrumentation and monitoring of the planned evapotranspiration (ET) barrier on the site (to analyze soil water content, water movement, root penetration and growth in cap material). This would allow DOE to evaluate actual performance of an ET cap in the Hanford environment. DOE verbally indicated their intent to carry out such monitoring, but made no commitment in writing. Oregon recommends Ecology include a Permit condition requiring such monitoring to critically assess cap performance at NRDWL/SWL (or at a different waste site should it be the first to have an ET cap actually installed at Hanford).	Condition and Addenda text for the NRDWL closure unit has been edited and revised to ensure compliance in accordance with closure requirements of WAC 173-303-610 and 665. CAP performance will be monitored.
Ken Niles	WTP	Waste Treatment & Immobilization Plant Operating Unit Group 10 (OUG-10) Addendum B1 Waste Treatment Plant Waste Analysis Plan (Section I, Introduction, Part III, Operating Unit Group 10-B1.1, Paragraph at line 31) The Permit should not assume that all conditions will be met (removing key radionuclides to the maximum degree practicable, meeting Class C waste limits and conditions, etc.) to allow reclassification of immobilized low-activity waste as incidental, which is needed for disposal to occur at Hanford. If the conditions are not met, then disposal at Hanford would not be allowed.	DOE's interpretation of the definition of High Level Waste is not within the scope of the proposed permit renewal.
Ken Niles	WTP	Waste Treatment & Immobilization Plant Operating Unit Group 10 (OUG-10) Addendum F1 Emergency Response Plan Oregon recommends that Ecology not defer emergency plans and procedures to DOE planning documents. These need to undergo review and approval with public comment comparable to and in accordance with the RCRA permit.	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	WTP	The section titled “Part III F1, Emergency Response - Section F1 - F5.4, F6.1.9 and F7.2.7 Criticality” inaccurately asserts that criticality events are not credible at the WTP. Based on plutonium particles and mixing issues, these are now known to be credible events. Inaccurate assertions like “Analyses have shown that there is no credible criticality event that can be postulated to occur at the WTP (BNI 2001b)” need to be removed.	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.
Ken Niles	WTP	The emergency plan should specifically detail the expected actions/conditions following a Cascadia earthquake that results in wide-spread destruction across the region and which may disrupt power, water supply, fuel, roads, shipping and other resources for prolonged periods.	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.
Ken Niles	WTP	As evidenced by the 1980 eruption of Mt. St. Helens, the damages and difficulties associated with volcanic events go far beyond those identified in F6.2.2 Volcanic Eruption/Ash fall. Potential impacts include highly abrasive ash infiltration into operating spaces; equipment failures from polishing; and added entry controls to minimize ash entry that can result in secondary failure of exit safety equipment to perform (exit doors being taped shut so securely as to be unusable in an emergency).	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.
Ken Niles	General	The emergency plans should include an assessment of various modes of failures and their impacts on the emergency plans (common, cascade, sequential, parallel and other modes; age related failures through erosion, wear, corrosion, etc…)	Hazards are analyzed and described in Attachment 4, "Hanford Emergency Management Plan," each unit group Addenda F, "Preparedness and Prevention," and each unit group Addenda J, "Contingency Plan". These documents identify the hazards that could be encountered, and establish plans for how the hazards will be addressed.
Ken Niles	WTP	The Emergency Plan does not reference, postulate or plan for suffocating CO2 release events from the cooling systems.	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.

Commenter	Unit Group	Comment	Comment Response
Ken Niles	WTP	Where CO2 is used or may be expected to migrate there should be requirements for continuous real-time monitors and alarms.	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.
Ken Niles	WTP	Section 9.2 should include specific actions to ensure that CO2 fire extinguishers are not used on or near high voltage equipment, or in areas that are or may become “confined spaces.”	The WTP Permit was updated to prepare for operations and the Rev. 9 renewal. WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed. Both of these chapters reflect current and enforceable language.
Ken Niles	SST	Recent analyses suggests that concrete in the WESF storage pool may have become embrittled by long-term exposure to high gamma radiation. Oregon recommends that Ecology include specific and detailed Permit conditions requiring annual physical assessment of the soundness of this facility. Because the radiation damage to concrete was not anticipated at WESF and not included in the design basis for the facility, it seems likely that this is a generic concern. Oregon recommends that Ecology include Permit conditions to evaluate all other facilities with high radiation doses and/or high temperatures that may impact the structural capability of concrete. The first evaluation should be completed within two years (specifically including single shell tanks, double shell tanks, and the canister storage building).	The Single-Shell Tank portion of the Hanford Rev.9 Permit now includes Addendum I, Inspection Plan, that incorporates by reference SST tank inspection scheduling as recommended by the tank integrity reports, which are conducted by an Independent Qualified Registered Professional Engineer (IQRPE). The structural integrity reports conducted by IQRPEs include assessments of the tank domes.

Commenter	Unit Group	Comment	Comment Response
Kevin Carlson	SST	And my comment concerns the concrete boxes that are stored-- my testimony concerns the concrete boxes that are stored at the Central Waste Complex. Last March, we learned that a concrete box of mystery waste at the Central Waste Complex was dripping numerous hazardous wastes into the ground. Department of Energy officials claimed that the waste was just rain water. These wastes had been characterized as debris, which means solid material, and they'd been stored for 18 years without a permit. The law prohibits storing such waste for over one year before retrieval for treatment. And the Washington State Department of Ecology issued an Immediate Action letter and told DOE to maintain the box's cover and evaluate its structural integrity. But what needs to be done to protect the public from all such mystery waste at Hanford is to characterize the waste and determine whether it contains waste that can cause leaks, fires, or explosions. The hazardous waste permit for Hanford needs enforceable terms to ensure that the waste will be characterized so that they could be removed and treated on a reasonable schedule.	For areas where wastes requiring secondary containment are managed, secondary containment systems for dangerous waste management units must be constructed and maintained to contain 10% of the total volume of waste containers of 100% of the volume of the largest waste container, whichever is greater. In addition, both the requirements in the texting Addendum C and the waste acceptance criteria in Addendum B will be revised accordingly and consistently. The CWC permit Addendums and conditions will be edited and revised to ensure compliance with WAC 173-303-630, Use and Management of Containers. No additional waste will be stored in Outside Storage Area A and the Permittee will submit a schedule for closure of the Area
Kevin Newcomb	General	As a current Hanford tank farm worker, I feel I have a moral and ethical responsibility to respond to the public comment of the draft waste permit. I have to agree with Tom Carpenter regarding his opinion on requiring supplied air while working around the tank vapors. I currently work as an Industrial Hygiene Technician, working in the tank farms for the past 18 years, I have occupational illnesses related to the exposures of the tank vapors. The occupational illness claims have been approved through the Dept of Labor EEOICP. Per company procedures, a claim was initiated with the State of Wash. L and I, which was initially denied based on information provided by the independent insurance company and is currently in the BIIA appeals process. Personally, I have concerns that fellow employees have related occupational illnesses that have also been EEOICP accepted as related to exposures to the tank vapors. I personally monitored for these employees, saying it was safe for them to work based on the monitoring provided to me from Industrial Hygiene sampling plans. RCW 49.17.050 (4) provides the guidelines and standard where supplied air should be required based on lack of monitoring and sampling of hazards emitted as tank vapors from the tank farms. Some of these hazards, such	USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C.

Commenter	Unit Group	Comment	Comment Response
		as dimethylmercury are highly toxic. The following are concerns submitted by me to the Department of Energy related to my concern for the lack of monitoring and sampling and medical monitoring relating to my occupational illness. 1) The Occupational Medical Provider, CSC, is using Beta-2 Microglobulin as a biomarker for mercury as part of the medical monitoring program. Conflicting medical information indicates both an increase or a decrease of Beta-2 Microglobulin when exposed to mercury. OSHA states " no biological monitoring test acceptable for routine use has been developed for mercury vapor". 10 CFR 851 Appendix A Section 8 Occupational Medicine (i) workers must be informed of the purpose and nature of the medical evaluations and tests offered by the occupational medicine provider. (I)The purpose , nature and results of the evaluation and tests must be clearly communicated verbally and in writing to each worker provided testing. If the occupational medical provider is using Beta-2 Microglobulin as a biomarker for mercury they need to communicate verbally and in writing the above information to the employees being tested per the above CFR standard. 2) The occupational medical provider has an entry ACGIH TLV STEL criteria for the mercury medical monitoring program that does not exist. Dimethylmercury is a known hazard in tank farms. Its worth noting; concerns have been raised to the accuracy of the current sampling information regarding dimethylmercury. EJTA's only list mercury as a potential exposure hazard. 10 CFR 851.23 Safety and Health Standards. A) Contractors must comply with the following Safety and Health Standards that are applicable to the hazards at their covered workplace (9) ACGIH. Currently in the tank farms there is no 8 hr TWA personal sampling or monitoring for organic mercury and there is no personnel sampling or monitoring for STEL for organic mercury. Since there is no way of knowing if workers have been or will be exposed to dimethylmercury above the 8 hr TLV or STEL, the mercury medical monitoring entry criteria, all workers that have a potential to be exposed to the dimethylmercury hazard need to be included in the Mercury Medical Program. EJTA's need to reflect that no TLV or STEL sampling and monitoring exists for the organic mercury hazard. This information needs to be communicated to the employees affected per 10 CFR 851 Appendix A Section 8 (1). 3) Mercury hazards in the tank farms needs to be identified and controlled when tank waste is transferred to the WTP. Increases in the formation of dimethylmercury, as the result of	

Commenter	Unit Group	Comment	Comment Response
		heat generated, needs to be analyzed for workers safety. Occurrence and Chemistry of Organic Compounds in Hanford Site Waste Tanks RPP-21854 discusses the chemical formation of dimethylmercury in tank waste. The Occupational Medical Provider needs to address this hazard as part of the Medical Monitoring Program and company EJTA's. 4) SCBA should be required when working around potential sources of dimethylmercury in the tank farms. Current sampling results are suspect as noted in previous concerns. Source sampling manifold/tubing techniques are suspect per EPA and WDOE requirements. There is no way of knowing if a worker exceeds a STEL for dimethylmercury while working around sources of dimethylmercury in the tank farms. Additionally, tank waste with Mercury and dimethylmercury has been transferred throughout the Double Shell Tank(DST) Farms. Because of these transfers, exposure levels of dimethylmercury is unknown at the DST exhauster emission points. Supplied air should be required, until exposure levels can be obtained through EPA and WDOE approved exhauster stack source sampling. Until there is monitoring and sampling proving that exposures to the tank vapors will not harm employees, in my opinion, supplied air should be required when working around the tank vapor emission points, including primary exhauster stacks, breather filters, and any open path to the tanks.	

Commenter	Unit Group	Comment	Comment Response
Kyle Cleys	General	It seems that yet again there are proposals to bring more hazardous waste to Hanford. I and many other people have already demanded that the US Department of Energy clean up what is already there first rather than compound the problem by adding more waste. Washington State has the authority to prevent additional hazardous waste from being brought to Hanford and it should use that authority to do just that.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Kyle Cleys	General	It is proposed that trenches containing hazardous waste be left in place with very little monitoring. This is unacceptable. The Department of Ecology should require the removal and treatment of these wastes or at least a full investigation what these wastes are. And strict monitoring should be put in place all along the trenches to detect soil and groundwater contamination.	Within the HFFACO, the M-024 TPA milestone sections, there are requirements for monitoring groundwater. The permittees are required to sample wells and soil for RCRA and/or CRCLA sites.

Commenter	Unit Group	Comment	Comment Response
Kyle Cleys	CWC	There are currently illegally stored wastes in drums and containers at Hanford's Central Waste Complex. The Washington State Department of Ecology should require the US Department of Energy to properly characterize and treat these wastes in compliant facilities and should disallow new wastes.	The CWC permit Addenda and unit-specific permit conditions have been revised to ensure compliance with WAC 173-303-630(9), Use and Management of Containers. All waste will be designated in accordance with WAC 173-303-070 and 170. No additional waste will be stored in Outdoor Storage Area A (OSA A) or Outdoor Storage Area B (OSA B). OSA A is currently going through closure activities and will likely close within the next two years. The OSA B closure plan is going into Rev. 9A and will undergo closure within the next 5 to 7 years. The US Department of Energy and Central Plateau Cleanup Company have a schedule for closing all the unauthorized units at the CWC (and T Plant Complex). The current plan is to do 2 to 3 per year until all are closed. Where possible, work is being combined to allow for faster closure of these units (e.g. sampling activities). The permittees are also ensuring that the Hanford budget request includes requests for funds to complete these closures.
Kyle Cleys	SST	For future permits, the Single-shell high-level nuclear waste tanks should be emptied to the greatest degree possible, beyond 99% to 99.9% or above. These tanks should not just be covered up!	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.
Kyle Cleys	General	You may wonder why someone from Oregon is submitting comments to a Washington State agency. The contamination at Hanford has the potential to cause serious contamination of the Columbia River which flows just a few miles from my home. And the thought of trucks carrying radioactive waste through Portland on their way to Hanford makes me shudder. An accident involving one of these trucks could render my home uninhabitable along with possibly killing and sickening many people. Even with no accidents these shipments will give off enough radiation to cause additional cancers. Why would any sane society do such a thing?	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Larry Lowther	General	Dear Ms. Prignano, I am writing as a concerned citizen living in Central Washington about the nuclear waste hazard at Hanford. Before we receive any more nuclear waste for storage at Hanford, we should clean up the mess we have. The current situation threatens the Columbia Basin watershed and the health of the citizens of this state. It is imperative that plutonium, cesium and other radionuclides and chemicals be dug up and removed at all sites, not stopping at 2' or 15'. Remember that the health of the citizens of this region is at stake.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

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Laura Feldman	General	Dear Washington Dept. of Energy, As I submit this comment “Fukushima” is still leaking into the Pacific Ocean, protesters are demanding the closure of the reactor at San Onofre, California which has been shut down due to safety concerns, and nuclear emergency preparedness in this region according to The Oregonian, 5/20/12, is frighteningly inadequate. The list could go on and on. At last week’s hearing regarding the review of the hazardous waste permit which gives you the authority to enforce a thorough clean-up of accumulated waste at Hanford, and to prevent trucking more waste to the site, I noticed something I haven’t seen before at these hearings—activism. I’m not just speaking about the Occupy folks, though their presence definitely signals a sea change—it was the testimony and stance of elder activists, watchdog representatives, and public officials and their reps who were asking for something different. I wonder if you noticed it. People weren’t simply expressing shock and outrage as usual, they were calling for action, for intervention from us in the room. What that will look like will depend in part on how this permit process plays out. If it lacks the necessary “teeth” I think the community is beginning to understand that they may need to provide the teeth. If I could have stayed to testify that evening I would have advocated for an activism that protests against nuclear weapons and waste, and a sustainable activism that reconnects us and our children to the places we live, the land we are part of, depend on for life. To reiterate what one man said at the hearing: I understand that you’re in a difficult position. I especially know this after touring the Hanford site a few weeks ago. You have the USDOE and nuclear industry et. al. breathing down your neck and activists pushing at you from all sides. But you are the gatekeepers! And we need you to stand up and stand firm in enforcing this stage of the Hanford cleanup.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Laura Feldman	General	The first point I want to make is that there should be a Plan B. If double-shell tanks start to leak, as they have recently, the permit needs a contingency plan. I think some of the alternatives might be, as Heart of America Northwest has suggested, building new and larger shells at the vitrification plant site rather than extracting the waste from the drums, putting them in these tanks, then emptying these tanks into other tanks that will then be vitrified. It seems a little inefficient, and dangerous, actually, in the long run. And I want to suggest to people, I've taken great heart recently in discovering the Nuclear Guardianship Project. Part of what they suggest is that this waste should not be buried at all, so that we tend to forget about it, forget what's in it, which is part of the problem we're dealing with now. They suggest that the wastes should be secured above ground and that we pass it on generationally in 50-year increments to the next generation to the next generation until we begin to figure out what to do with it rather than burying it. It's just, I think, not very useful in the end. And then finally, I want to say, of course no more offsite waste to Hanford ever. In perpetuity, no more waste. Simply no new waste at Hanford. Let the land heal. We're done with that site and somehow, maybe in thousands of years to come, it will be place that becomes alive again.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes the construction of a new double-shell tank and a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan.
Lawrence Erickson	General	Attention: Andrea L. Prignano I attended the program at the Red Lion Inn last night. I would like to thank you for the quality of the presentation provided by your people. They were professional in the presentations and in their responses to the audience. This is a very complex issue and your folks handled it very well. Thanks again, Lawrence Erickson	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

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Leah Boehm	General	I am against opening Hanford to ANY new waste, until the leaking is stopped, and the groundwater contamination cleaned up. I believe other states need to make locations in their own borders to keep their own waste. I also believe that this waste should never travel our highways without armed escort. We all know how complicated this all is, but my message is simple. NO NEW WASTE CLEAN UP WHAT IS THERE.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Leah Boehm	General	I insist that WA State use its permit authority to bar offsite waste by limiting use of Hanford's limited disposal capacity to wastes from cleaning up Hanford. please STOP all new waste, it needs to be cleaned up NOW.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Leah Boehm	General	I'm particularly concerned about what the permit does regarding transportation to the site of any additional waste. Hearing everything, that there's so many concerns, it's so huge, and the pollution is so great. I don't think that our state should allow any more waste of any kind to come there until the situation has been stabilized. But I particularly have a concern about what this gentleman said that quote "low-level" waste is travelling our highways without proper military escorts. I think that terrorists could find out about it and take it and make dirty bombs, and I think our government needs to be really cognizant of this danger, not to mention accidents. Accidents of things crossing our highways. I mean accidents aren't even part of this. To hear also that there's an expectation that over 800 cancers will be caused because you'll get a dose of radiation by the things being transported, I think the stuff can't be transported until they can safely transport it and not expose people in the process of moving it. But I just would love it if they stopped anything from being imported until the situation is stabilized.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

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Lesley McCormmach	General	Letter to the Washington State Department of Ecology: Washington State must use its federally granted authority to say: No More Waste at Hanford No new offsite landfills We insist: Clean Up--Don't Cover Up the existing contamination Hanford is the most contaminated site in the Western Hemisphere. We say NO to more poison. There are 40 miles of unlined trenches full of it. The Columbia River is already in peril, as are we whose lives are rooted in the region. Are we to be the next Fukushima? According to experts, nuclear & radioactive waste should be put into granite. We of northeastern Oregon & southeastern Washington State cherish this bunch-grass West that the Federal government obviously despises, giving itself permission to treat it as a toxic garbage pit. The USDOE's appalling malingering in the cleanup of the Hanford Nuclear Reservation has been an open sore in the hearts of many here for so long that they may think we've grown numb to it. No!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Lesley McCormmach	General	#No more nuclear waste should be produced until/unless a safe method and site for disposal are developed. #Already at Hanford, 40 miles of unlined trenches are filled 50 feet deep with unidentified hazardous and radioactive waste. Any new landfills for offsite waste should be banned. #The DOE must not ship more nuclear and hazardous waste to Hanford. It must clean up the perilous waste already stored there. See Heart of America website for further information. If you want to protect your family and the other families of the Northwest from potential nuclear disaster, please submit your comments to Hanford@ecy.wa.gov by Monday.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Lesley McCormmach	SST	The USDOA must do better than 99% site contamination removal. It is despairing that Washington State would give the USDOE until 2040 to empty the single-shell tanks of high-level nuclear waste or would allow dirt caps over existing leaking tanks when the USDOE's own Tank Closure & Management EIS states that putting dirt caps over areas & leaving the last 1% of contamination (which may contain up to 20% of the metal radionuclide content) in the tanks, along with leaks & contamination from a billion gallons of discharges, will gravely contaminate the groundwater. Is it true that some double-shell tanks are also beginning to leak?	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. Ecology has worked with the Permittees to create an addition to the Rev 9A permit that includes closing Double Shell Tank (DST) 241-AY-102 which has been identified as leaking into the annulus. There is no indication that the secondary tank is leaking. This will be the first DST that will be closed and more will be planned in the future.

Commenter	Unit Group	Comment	Comment Response
Lesley McCormmach	General	Transporting 30,000 more truckloads of radioactive nuclear and hazardous waste to be stored at Hanford would pose alarming risks to those who live in the area, to those who live in the Columbia River Basin, and to all those who live in states through which the nuclear waste would be transported. #The trucks that would transport the waste cannot have thick enough lead siding to prevent radiation leaks because the lead would be too heavy for the trucks to be able to move. Even if there were no accidents, the radioactivity that would escape along the way could cause 816 adults to die of cancer, by the DOE's own estimates. #Children are especially vulnerable. If there were an accident resulting in fire or a terrorist attack on the route that goes through the Portland area, 1,000 could die immediately and 300 square miles would have to be evacuated. The Columbia River would become radioactive. This radioactivity would contaminate the area for thousands of years as is happening at Chernobyl and Fukushima. #How can anyone think this is an acceptable solution to storing radioactive and nuclear waste? Has the DOE decided it is acceptable to risk the lives of those in the Pacific Northwest for the convenience of nuclear waste producers on the East Coast and throughout the U.S.?	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Lesley McCormmach	SST	#Some of the 68,000 single-shelled tanks, many decades old, containing unidentified nuclear wastes are leaking. The waste from these tanks should be immediately transferred to double-shelled tanks, even though a few of the double-shelled tanks are also beginning to leak and may not still be secure in 2040 when the single-shelled tanks are scheduled to be emptied.	There are 149 Single Shell Tanks (SSTs) with ancillary equipment. To reduce the risk of leaks to the environment the bulk liquid portion of most of these tanks was removed and pumped into the Double Shell Tanks (DSTs). This was referred to as interim stabilization. The Single Shell Tanks and Double Shell Tank 241-AY-102 are closing units and will not accept any additional waste.
Leslie March	General	I'm Leslie March and I am a member of the National Sierra Club No Nukes Core group, which is about to kick off a national Sierra Club No Nukes campaign. As a matter of fact, just last weekend, we were in Washington D.C., and Helen mentioned West Valley, well, Dr. Marvin Resnikoff was there and he was comparing Hanford to West Valley to me in our conversations. These comments are being submitted on my behalf and also my family members that live in Washington State and my family members that live on the Columbia River. My family has lived on or near the Columbia River since the early 1900s and I consider it a tragedy that our family name, Hanford, continues to be synonymous with the most polluted site in the United States. Sorry, I get really upset about it. The town of Hanford was founded by my great grandfather and named after his father-in-law and it was supposed to be an honor. It's not. The double tragedy is that despite many years and billions of dollars, we are still debating how to safely dispose of the radioactive waste. The draft hazardous waste permit, as written, has major flaws. First of all, in order to clean up the site, there needs to be a moratorium against bringing any new waste onto the site. Whether it is going in an existing landfill or not, there needs to be strong language barring any new landfills to be opened on the Hanford site. There is already a strong concern that the groundwater is contaminated and that that contamination is reaching the Columbia River. Why would we increase the chances of this happening by taking on additional risk? The state needs to add stronger language to require all of the trenches to be cleaned up, not just covered over with more dirt. The state needs to require stepped up characterization of this waste and to perform appropriate withdrawal and treatment of the waste. And then there are what would be for any standard business illegally	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches

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		stored barrels of uncharacterized waste that are still in the area, which is what people in the Tri-Cities call Hanford. The state needs to require that the contractors step up their investigation of this waste, a comprehensive plan needs to be done sooner rather than later, and contractors need to be held accountable to timelines and given incentives to succeed, not as it is done today when they continue to be rewarded for failure. Forty years of failure. I know that your permit doesn't cover this, but the state should take steps to prevent the continued production of radioactive waste on the site by Columbia Generating Station. The state should encourage the development of renewable power to replace the plant and the irradiated fuel pool needs to be emptied and placed in hardened onsite storage. In conclusion, the State of Washington needs to adopt strict requirements for cleanup, not cover-up. Our past leaders made hard decisions on behalf of national security. But we need to recognize that we are left with this legacy and that we have the responsibility for cleaning Hanford up on behalf of the generations in the future.	are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. Energy Northwest (Columbia Generating Station) stores their used nuclear fuel on site after 6 years in the reactor core. The containers are stored in a deep pool for 5 years and then moved to a safe above-ground dry storage. More information can be found on the Energy Northwest website.
Leslie McClure	SST	To whom it may concern, Although I'm not specifically educated on the storage of nuclear waste, I have read that no known way of storing it is safe forever. Therefore, my question would be what is intended for the long term? We keep coming up with short term solutions to all of our problems these days. Instead of instant gratification, I would prefer to know that I can drink the water, the wine, and breathe the air safely when in Eastern Washington for the rest of my life. I'd also demand that to be true for my kids and grandkids down the road. Burying nuclear waste in single-shell tanks doesn't sound like a permanent solution, so my vote is against the permit. Instead of the "out of sight, out of mind" approach, will we be using our funds to discover a way to destroy the nuclear waste? If we can find a method of destruction, I would certainly support that!	The Single Shell Tanks (SSTs) are a closure unit and not intended for long term use. According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the SSTs includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

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Leslie McCormmach	General	The following words express my opinions about proposed transport and storage of nuclear waste. This proposed project is completely unacceptable for the state of Washington. Transporting 30,000 more truckloads of radioactive nuclear and hazardous waste to be stored at Hanford would pose alarming risks to those who live in the area, to those who live in the Columbia River Basin, and to all those who live in states through which the nuclear waste would be transported. #The trucks that would transport the waste cannot have thick enough lead siding to prevent radiation leaks because the lead would be too heavy for the trucks to be able to move. Even if there were no accidents, the radioactivity that would escape along the way could cause 816 adults to die of cancer, by the DOE's own estimates. #Children are especially vulnerable. If there were an accident resulting in fire or a terrorist attack on the route that goes through the Portland area, 1,000 could die immediately and 300 square miles would have to be evacuated. The Columbia River would become radioactive. This radioactivity would contaminate the area for thousands of years as is happening at Chernobyl and Fukushima. #How can anyone think this is an acceptable solution to storing radioactive and nuclear waste? Has the DOE decided it is acceptable to risk the lives of those in the Pacific Northwest for the convenience of nuclear waste producers on the East Coast and throughout the U.S.? #No more nuclear waste should be produced until/unless a safe method and site for disposal are developed. #Already at Hanford, 40 miles of unlined trenches are filled 50 feet deep with unidentified hazardous and radioactive waste. Any new landfills for offsite waste should be banned.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the

Commenter	Unit Group	Comment	Comment Response
		#Some of the 68,000 single-shelled tanks, many decades old, containing unidentified nuclear wastes are leaking. The waste from these tanks should be immediately transferred to double-shelled tanks, even though a few of the double-shelled tanks are also beginning to leak and may not still be secure in 2040 when the single- shelled tanks are scheduled to be emptied. #The DOE must not ship more nuclear and hazardous waste to Hanford. It must clean up the perilous waste already stored there. See Heart of America website for further information. If you want to protect your family and the other families of the Northwest from potential nuclear disaster, please submit your comments to Hanford@ecy.wa.gov by Monday.	200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Linda Green	WTP	As far as cap and cover is concerned, if there is waste that was capped and covered in the early 1900s or the 1950s or the 1970s, it still isn't the same thing as radioactive waste. I mean, the effects from a radioactive waste can be seen thousands of years from now. If somebody buried something in 1900, that's only 112 years ago. I mean, that's nothing as far as radioactivity is concerned. I have been -- it seems like I've been testifying about this subject for some time. It seems like every year or so we have hearings about what should be done at Hanford? And people always say the same thing, it should be cleaned up, and there's really not a big question about that. It seems like we're spending a lot of money on hearings when we could be actually spending it on cleaning it up. I ask that we do not make Hanford a waste dump for any more nuclear waste. Hanford already has too much waste. Real progress has not been made on storing the current waste in an environmentally safe manner. Before any waste is brought into Hanford, the huge amount of nuclear residue on this site already should be entirely cleaned up. There is no end in sight as to when this will actually occur. Agreed upon dates and timeline for cleanup have been pushed back time and time again. There should be no delays of the cleanup schedule and no room for the change of the timeline. Now, supposedly, it's going to be 2022 when we get the	Under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE or DOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). Regarding your concerns about waste being transported and stored onto the Hanford Site, under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). The WTP Facility has been constructed and permitted to treat and dispose of waste from onsite facilities. Ecology has not approved permit language in the WTP Permit to include the importation and treatment of waste from offsite facilities. Under a 2006 settlement resolving the Washington v. Bodman case, the Department of Ecology (Ecology) and U.S. Department of Energy (USDOE or DOE) agreed that outside of a few specified exceptions, USDOE would not import off-site waste to the Hanford Site before a Record of Decision (ROD) had been issued in conjunction with the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). In preparation for the revised renewal, Ecology and USDOE were in disagreement on this issue. Ecology agreed to remove the definition of off-site waste from the

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		vitrification plant and I neglected to say the first time around that since the permit says that offsite waste can go into Hanford as soon as the waste treatment plant is operational, it doesn't say that it can't go in the day that it's operational and they haven't cleaned up the stuff that's already there, they're just going to bring in more stuff while the stuff that's there hasn't been treated yet, which doesn't make any sense to me. I think you have to have it all vitrified before any other waste would possibly come there. Anyway. Hanford is a poor choice for a repository in the first place. Since it currently has nuclear waste, it makes sense for it to be vitrified and stored at that location. However, any new nuclear waste should be kept in the location where it has been produced. If that is not possible, it should be stored in a place far from any ground water used as drinking water for thousands of people. It is immoral to put the repository in a place where people are put at risk. I understand that much of the waste proposed to go to Hanford has not yet been produced. In that case, I suggest that it not be produced in the first place. Nuclear weapons, obviously, should not be produced in the first place, and nuclear energy is a dangerous, polluting, and expensive source of energy. I ask that you instead turn your energy to clean energy which will end up being much more economical in the long run and does not harm our environment.	Hanford Site-wide Rev 9 permit renewal as requested by USDOE. Ecology will proceed with including unit specific conditions for CWC, 325 HWTU, T-Plant, IDF or LLBG in the revised Hanford Site-wide Permit renewal. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. The following template permit condition language is proposed to be included in the current Revision 9 Hanford Site-Wide Permit: The [Unit Group Name] [Unit Group Type] Unit Group is located in the [Hanford Site Location] of the Hanford Site. The [Unit Group Name] Unit Group provides treatment, storage, or disposal of dangerous waste and/or mixed waste (MW) generated on the Hanford Facility [or other Unit Group description of waste treatment, storage or disposal activities] and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Permittees may manage the following wastes as described in the Waste Analysis Plan which are approved for [treatment, storage or disposal] at the [Unit Group Name] Unit Group: dangerous and/or mixed waste that is generated from processes at the Hanford Facility and [specify any off-site waste streams applicable] generated off the Hanford Facility and within the limitations and exemptions specified in USDOE's December 13, 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington]. Changes to the wastes authorized for management at [Unit Group Name] Unit Group may be authorized via a permit modification decision pursuant to Permit Condition I.C.3. Requests for permit modifications must be accompanied by an analysis adequate for Ecology to comply with SEPA.
Linda Jansen	General	This is the only answer. No more nuclear waste creation until we have a safe plan for disposal. If this means we can never use nuclear (my suggestion), then so be it. Humans have brains for a reason (to maintain our species survival). Woe be unto us if we don't use them to figure out how to go forward without poisoning ourselves with radiation. Think outside the nuclear box we have put ourselves in.	The Hanford Site does not create more nuclear waste. USDOE is cleaning up legacy waste from when the U.S. government was producing nuclear weapons.

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Linda Johns	SST	I understand that your department has the authority, under Federal hazardous waste law, to require clean up 40 miles of unlined trenches. The alternative, covering them with dirt, is not acceptable. Single Shell high level nuclear waste tanks are leaking and contamination remains unresolved. 1) It is the responsibility of the US Dept. of Energy to investigate and characterize the wastes in the trenches. The wastes should be analyzed, removed, and treated more appropriately. 2) Soil and groundwater monitoring should be required of the USDOE. 3) Your dept. should require that all wastes be treated on a schedule. 4) Wastes already stored at Hanford are projected to cause contamination in excess of groundwater and health standards. No new wastes should be accepted until the current wastes are treated and facilities created to safely house future wastes. Please add provisions to the draft permit which will ensure proper clean up and decontamination of both single shell high level nuclear waste tanks and unlined trenches.	The Hanford Federal Facility Agreement and Consent Order (HFFACO), Appendix I, requires the Permittees demonstrate achievability of waste. The Permittees will remove as much waste as possible and Ecology will work with them to determine the percentage of residual waste may be left in the tank. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Linda Larsen-Wheatley	General	Please do not allow Hanford to be a National Waste site for hazard materials. This would entail having hazardous materials on our freeways and other roads in Oregon	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Liz Mattson	General	One big concern for Hanford Challenge is the waste treatment plant and ensuring that the permit looks at the design of the waste treatment plant to ensure that it will work, and to ensure that ensure that it addresses the numerous safety and design issues that have recently been the focus of so much investigative activity and media attention. We are also concerned about the vitrification of the waste treatment plant's low activity waste stream, which I know the Department of Ecology is also concerned about. One question is, how does the Department of Ecology plan to regulate the risk budget tool to ensure that the integrated disposal facility will only accept vitrified waste, and also assure that no high level nuclear waste or other long lived radioactive products end up as disposed of in a non-compliant repository such as IDF?	The phased permitting approach implemented for WTP provided Ecology with the opportunity to review the sound engineering principles and capabilities incorporated into the WTP design before equipment was installed in the facility. These design deliverables included independent corrosion evaluations. The permittees will demonstrate the technically functional elements of the facility via testing and integrity assessments. The WTP Permit and the Integrated Disposal Facility permit are being integrated to address the risks of disposing ILAW and Secondary wastes from WTP. The IDF permit requires a risk budget tool that's purpose is to identify and mitigate prior to disposal wastes that will be problematic from a risk standpoint.
Liz Mattson	SST	As far as tank closure is concerned, we'd like the state to be willing to modify the Tri-Party Agreement to both reflect delays due to the slow retrieval process in the tank farms, and also to enable a decision for closure of the tank farms that's protective of ground water, the Columbia River, and future generations. And also in terms of for chemical vapor monitoring -- [Note: the comment was cutoff due to the 2-minute allowance ending.]	Ecology agrees that we should have posted an advertisement and information in newspapers of general circulation. We will work to ensure the larger population in communities receive information on opportunities for public review and comment.

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Lizzy Brackett	General	In addition to providing feedback on the public hearing itself, I would also like to comment on the permit. While I am by no means an expert on Hanford, I have lived in Washington State my entire life and am greatly concerned about the USDOE plans to bring in offsite waste to Hanford. Given the magnitude of complex of issues surrounding the cleanup of Hanford's current waste, I cannot understand why more would be brought in. Bringing in additional waste seems counterintuitive, for it could only create more issues, like those surrounding the transportation of this waste, and ultimately, further delay the completion of Hanford's cleanup. I strongly encourage the Department of Ecology to exercise Washington State's authority and consider including a bar on the importation of offsite waste into Hanford in the permit. Once again, I want to thank you, Department of Ecology, for not only holding a public hearing for us in Seattle, but also for thoughtfully listening to and considering our comments while revising the permit.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Lizzy Brackett	General	Thank you Department of Ecology for hosting a public hearing on Hanford's Hazardous Waste Permit in Seattle! I was in attendance last Tuesday night (5/15/12) and was excited to see many first timers and younger people like myself there, as well as members of the older generations who are so knowledgeable about Hanford! I have heard from numerous people that it is hard to get the younger generation interested and involved in Hanford. As a member of this younger generation, who knew next to nothing about Hanford before taking a class about it at the University of Washington, I thought I would offer up some suggestions I have. First of all, while I thought the public hearing was very informative, the pace was a little fast, some of the speakers hard to hear and follow, and the screen was very difficult to see from the back of the room. I know time was very tight but I feel having the presenters speak slower and clearer would keep the audience more engaged. In addition, it may be helpful to provide handouts of the slides being presented to people who have a hard time seeing the screen for whatever reason (sitting in the back, eyesight issues, etc.). Secondly, I think a great way to get the younger generation involved in these public meetings/hearings about Hanford would be to video record them and stream them live on the Internet. The majority of young adults, myself included, lead very busy lives between school and/or work. Having the ability to watch the public meetings and hearings online would allow us to make well informed comments based on what was presented at the hearing via US Mail or email, even if we were unable to attend in person. In addition to facilitating greater participation among the younger generation, broadcasting the public hearings and meetings online would also give any other person who could not physically attend the chance to actively participate in this public process.	We appreciate your suggestions and feedback on public involvement. During the new draft Revision 9A public comment period we will be providing slide handouts to attending; holding meetings in-person and online; and making recordings available after the meetings. We also have a dedicated Revision 9A webpage with high level information for the public.
Lloyd Marbet	General	I have testified also like other participants here in a number of these proceedings. And I think it's been pretty clear, and I think we've been pretty clear that -- meaning our organization -- that we do not want to see any more waste at Hanford, period.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing

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		I'm really concerned about this, this representation being made by the Department of Ecology that somehow or another this legal agreement is really setting the barrier for any more waste to come in. I don't think that's the case at all, and I think it should be directly in the permit, as others have testified too this evening. The offsite ban should be contingent on more than just the start up of the vit facility, the vitrification facility also. That's another thing that just bothers me. I mean, suppose the vitrification facility fails to successfully operate after it starts up, all of a sudden you apparently have the door open for more waste to come in, and even though it's not going to the vitrification facility, that waste presents problems that can arise in the future, which have to be addressed, which are going to, I would believe, act in competition to the cleanup of what is the wastes that are already there. I don't think you should set any stage for that kind of problem to occur. And at a minimum, I mean at a minimum, the ban should be in the permit, it should be contingent upon the successful operation of the vitrification facility, and the successful cleanup of all of Hanford's waste. That's the kind of language that I would put in to ban, at a minimum, that would send a clear message that nothing is coming in, and I don't think you'll hear from me again at any hearing about more offsite waste coming in if you take that kind of approach. And I think that'll also take it away from other people as well. I also like Gerry's idea of show and tell. I think I'm going to have to see if I can come up with some of these things too, because I think we've been speaking English. I had hoped that somehow or another it would be clearly understood what we're confronting here. And it seems to me the concept that he's bringing up of a general condition is an approach that should be taken here. There should be a cumulative look at all the waste disposal operations that are taking place at Hanford, not some way that you can slip in problems that can come from individual waste applications that are somehow examined only on an isolated basis. It's the cumulative impact that we want to look at here, not the clever maneuvers that are made in order to kind of keep business as usual. And I'm been a long-time advocate for doing away with business as usual, especially when it comes to Hanford.	requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions.

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Lloyd Marbet	SST	I'd like to go to another issue too, and I'm not being original on this. This is the Plan B issue that Gerry's talked about as well as it relates to the double-wall tanks and the single-wall tanks failing. I really do believe that it shouldn't be a hard thing to comprehend that it really is a good idea to have contingency planning if in fact we've already got failure of the double-wall tanks. When you look at this issue you need contingency planning as part of the permit if the double-wall tanks are failing, which they apparently seem to be, some indication that they are and the failure of the single-wall tanks could overwhelm the double-wall tanks. I mean you could have a combination, one of those perfect storms and we seem to be getting more and more into perfect storms when it comes to problems in this country. I think we want to avoid perfect storms. And so, I'd like to see contingency planning made a part of the permit that addresses what happens if the double-wall tanks are failing, what happens if the single-wall tanks fail and they overwhelm the double-wall tanks, and I like the idea -- this is again, I'm not trying to take away anybody's thunder, this is Gerry's idea that I heard this evening about more tanks that sit in front of the vitrification facility that can take waste from the single-wall tanks directly before it goes into the vitrification facility. That's a wonderful idea, except if the vitrification facility itself doesn't work, then you've got the huge problem of what do you do? I'd like to see all this clearly addressed, and I would hope that you would do that.	The Single-Shell Tank portion of the Hanford Rev.9 Permit now includes Addendum I, *Inspection Plan*, that incorporates by reference SST tank inspection scheduling as recommended by the tank integrity reports, which are conducted by an Independent Qualified Registered Professional Engineer (IQRPE). Additionally, Rev.9 also includes Addendum J, *Building Emergency Plan* (which satisfies the requirements for "contingency plan" in WAC 173-303) and Addendum J-1, *Single-Shell Tank System Leak Response Plan*, to support both safe and timely responses to emergency situations that may arise within the boundaries of the SST WMAs.
Lois Isbell	SST	Sirs/Madams, I am aware that the time for public comment on Hanford ends 9/30/12 so I want to go on record. Hanford requires a full cleaned up, down to the bottom of each tank before any additional nuclear waste is accepted to the site. As it is the clean up is behind schedule and it appears that short cuts to a thorough clean up have been discussed as have adding more nuclear waste to the site. I believe the clean up is too important to the Northwest population and environment. I urge you to continue this mandate in full.	The single-shell tanks are not currently active and is considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA. Ecology is working with the permittees to close the SSTs safely and to protect human health and the environment during the extended closure period.

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Lonnie Clark	General	As a resident of Eugene Oregon and of the Northwest, I strongly oppose any legislation that would allow transfer of highly toxic waste on our roadways and highways of any radioactive material. I am sure watched or participated in the "good old boys' club" hearings in DC this past week, where the nuclear energy industry blithely stated they do not follow regulations or do they fulfill their requirements to do the work the say they will. Fukushima has highlighted the total disregard for human life and life on planet earth by the nuclear energy industry. I oppose all nuclear power and believe this program has been utilized only to promote war, as we know the nuclear power plant waste is used for nuclear bombs. We do not need nuclear power at all. We need to stop nuclear power and focus our energy needs from non toxic renewable sources like solar and wind energy, both of which have been effectively held down by the all powerful nuclear energy industry. I oppose any use of public roads to transport any toxic waste from nuclear energy. I believe the evidence of uncontrollability has been highlighted by the catastrophe in Hanford and now in Fukushima. I expect you to do what you can to stop the transport of any nuclear waste into the northwest and keep all dangerous materials off the road at any cost. We are now being radiated from Fukushima and we are being lied to daily now. Children will be getting thyroid cancer in the next two years in the states, even if # 4 at Fukushima does not blow up...when it blows up, the contamination of the world will be complete. THE CORPORATE GREED HAS TO STOP. THE INSANITY OF THE NUCLEAR INDUSTRY IS BEING HIGHLIGHTED DAILY BY THE CRIMES AGAINST HUMANITY PERPETRATED BY TEPCO. PLEASE DO NOT PUT THE HANFORD SITE IN THE COMPANY OF THE CRIMINALS IN JAPAN.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.

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		I EXPECT OUR CITIZENS IN CONTROL OF THIS MATTER TO DO WHAT THEY CAN TO STOP ALL TRANSPORT AND ALL FURTHER CONTAMINATION OF WASHINGTON AND OREGON AND IDAHO. I OPPOSE ALL MOVEMENT OF NUCLEAR ENERGY ON AMERICAN HIGHWAYS AND ROADS. AS A SIDE NOTE, I EXPECT THE STANDARDS TO BE ENFORCED ALL THE TIME AND OVERSIGHT OF THESE REGULATION TO BE ENFORCED. LISTENING TO THE CSPAN HEARING LAST WEEK, IT WAS OFTEN COMMENTED THAT PROCEDURES HAVE NOT BEEN FOLLOWED. THIS IS AN OUTRAGE THAT NOT ONLY DESTROYS PUBLIC CONFIDENCE BUT DESTROYS OUR ENVIRONMENT. I EXPECT YOU TO UPHOLD THESE REGULATIONS AND PROSECUTE THE CRIMINALS WHO DISREGARD THE LAW.	
Louisa Hamacheck	General	I'm concerned about the watershed of the Columbia River Basin. I've been travelling around Hanford, to the communities that surround Hanford in circles, close to Hanford within 10 miles, farther and farther out. I noticed all the poor Mexicans are living as close to Hanford as anybody I mean more than anyone else. That it's almost all Hispanic communities close. Anyways. The concern that I have is, for one, the Department of Energy is not to be trusted, and I would like to see that you become stronger, and as many have said. At first I was thinking to straight up to have your strength in the Tri-Party Agreement to see that the EPA, given the $2 billion a year that's given to the Department of Energy to take care of this waste at Hanford, that if half of our tax dollar goes every year to military spending, the	Ecology is committed to the protection of human health and the environment. The treaty of 1855 is an agreement between the federal government and the tribes. Those treaties ceded land to the Federal government but the tribes retained certain rights on the ceded lands, including the right to fish at usual and accustomed areas. Three treaty tribes have ceded lands at the Hanford site: the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Yakama Nation. Ecology maintains a relationship with those tribes in accordance with state law (RCW 43.376) and the Centennial Accord (https://goia.wa.gov/relations). Ecology is also committed to the principles of Environmental Justice for people of color, low-income people, and indigenous people (https://ecology.wa.gov/About-us/Who-we-are/Environmental-Justice). Ecology factors into our Hanford decision-making both the perspectives that we hear from meeting with tribal nations, and

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		Department of Energy should get on with solar and renewable energy and not be part of the military. I don't know if they get their money that way, but I don't want any of the watershed to be caught in the desire to be imperialists and take over other countries and bomb them. I don't see why our country is making more nuclear bombs, but it is my understanding that the nuclear power industry that the Department of Energy's promoting is in cahoots with the nuclear bomb making industry and that they are the same thing. I don't know because it's all -- This is a picture of a Cayuse Indian chief. In 1855 there was a treaty made with your governor Stevens of Washington with the Indian tribes that were around here. Land that was given to them in an agreement to have the pioneers come in and share it and have some of it was taken as soon as more pioneers said that they wanted some of the good stuff, it was reduced. And every one of the reservations were reduced that surround Hanford. That would be Yakima, Colville, Nez Perce, Spokane, Umatilla, and Warm Springs, if you want to think that it could jump over the Columbia River Gorge. They have been abused by a breaking of treaty. You all are holding onto this Tri-Party Agreement, that's a treaty made with the people of this area and that are downwind and downriver of Hanford. It's also an international offense of murder to allow any waste to go down the Columbia River and out the ocean. It goes to the fish. The fish go up to become those Alaska wild salmon. I talked to the Washington Department of biology Fish and Wildlife, rather, and was described that our McKenzie River fish from Eugene hang out with the Hanford downriver water and ethos for a year at the mouth of the Columbia River before they go out in strength. So, they have been absorbing and eating all the pollution. I understand that already, right now, there is plutonium in the goo that is toxic tar that is going out into the Columbia River into the fish reds. And that means that it's going down the river. That means it's coming back up, and I'm opening a can of worms here, because it is coming up into Eugene. The entire Columbia River Basin is at stake if any more of this pollution keeps going down the river, it's going to be carried back up by the salmon to all of our what would have been innocently or safely away from that.	the principles of Environmental Justice.

Commenter	Unit Group	Comment	Comment Response
		And what goes out to the ocean? I was going to go collecting seaweed this week for part of my income is wildcrafting, and there was nobody who wanted to collect seaweed with me for fear that at this point in March, the Fukushima waste has made its way across the ocean and has hit the Oregon shores, that means that Washington and Oregon shores probably, which means our fish of our income and our food, and something that I like to bring and have my children eat for the iodine that would protect them from the radioactive Iodine-131 that would released from a nuclear accident in our area, or what has come across the ocean from Fukushima, that they wouldn't absorb it. But now I can't even get it. But, of course, I don't want to buy it from Japan, and how much is this being researched of the fish and the biological lively things that are in our terrain that we would like to be able to eat? How bad is it going to kill us from that? So, I would like to see that the treaty of 1855 is honored for the tribes that surround Hanford, and join with them the Cattlemen's Associations of the cowboys and the Indians here, because we are all at stake, and an international concern about releasing radiation from Hanford. Helen Caldicott also said plutonium is an alpha emitter, and alpha breaks down glass, and that the vitrification plant, and that's Dr. Helen Caldicott of the PSRN, Physicians for Social Responsibility, Australian doctor of radiation-related sicknesses of cancer and birth defects. So, I don't know how we could've gotten this far with the vit plant with that being the case, but I wanted to bring that bit of information that she brought.	

Commenter	Unit Group	Comment	Comment Response
Louise McDonald	General	I went on the public bus tour of Hanford in June of last year. While I was favorably impressed by some of the cleanup efforts that I saw I was alarmed by others. While stopped at a site where truckload after truckload of hazardous waste was being dumped Into large earthen pits the tour guide passed around a sample of the material that will be used to line and cover the waste. I was appalled! The material was so thin and flimsy that I did not see how it could safely contain any radioactive materials even for a short while let alone for the thousands of years necessary for the safety of our air, soil and water and the food chain on which it depends. You see, I worked in hospitals for over 16 years-some of that time in radiology departments where I had to wear a film badge to detect my exposure to radiation. I was very aware that the walls and doors were reinforced with lead to help contain the radiation. That experience leads me to seriously question the safety and effectiveness of this plan for the cleanup of Hanford. Ten members of my extended family live in the Tri-Cities, as well as many friends. I am concerned about the long-term effects on their health and that of all those living downwind and downstream from Hanford. Please give the same priority and urgency to the total cleanup of Hanford that was given to its construction, startup and operation. And do not allow any more waste to be sent there until this is done.	While we don't know the exact circumstances of what occurred when you visited Hanford, Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Louise McDonald	General	Last June, I went on the public bus tour of Hanford, and while I was favorably impressed by some of the cleanup efforts that I saw, I was alarmed by others. While stopped at the site where truckload after truckload of hazardous waste was being dumped into large earthen pits, the tour guide passed around a sample of the material that will be used to line and cover the waste. I was appalled. The material was so thin and flimsy that I did not see how it could safely contain any radioactive or chemical materials even for a short while, let alone for the thousands of years necessary for the safety of our air, soil, water, and the food chain on which this depends. You see, I worked in hospitals for over 16 years, and some of that time in radiology departments, where I had to wear a film badge to detect my exposure to radiation. I was very aware that the walls and doors were reinforced with lead to help contain the radiation. That experience leads me to seriously question the safety and effectiveness of this plan for the Hanford cleanup. Ten members of my extended family live in the Tri-Cities, as well as many friends. I'm concerned about the long-term effects on their health, and that of all those living downwind and downstream from Hanford. Please give the same priority and urgency to the total cleanup of Hanford that was given to its construction, startup, and operation. And do not allow any more waste to be sent there until this is done.	While we don't know the exact circumstances of what occurred when you visited Hanford, Ecology's priority and mission is to protect human health and the environment. Engineers review the properties of the waste and the properties of the waste storage materials to ensure compatibility and that all regulations are met for safe storage of hazardous waste. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Lucy Joudeh	SST	It it hard to believe that Hanford remains such a disaster waiting to happen. There are laws in place to take care of the waste as should be done- but they are not being followed. AND, in addition there is a plan to bring more into our beautiful and fragile state. The anger and fear was I learn of all this makes me write for the first time in my life to an agency! The leaks, mis -management of the waste- it is unbelievable that the facility is not cleaned up, but quite the contrary! I am a 4th generation Washingtonian. My Great Grandfather and Great Grandmother were pioneers in S.E. Washington - a territory then. They homesteaded in this beautiful corner of the world. Federal hazardous Law gives us (Washington state) the authority for the Hanford permit to say NO MORE WASTE and CLEAN UP NOT COVER UP of tank leaks and certainly not simply covering up the trenches with dirt!	The single-shell tanks are not currently active and are considered a closure unit. The permittees are not allowed to accept more waste. According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Lynn Stricker	General	To All Concerned, As yet another of the justifiably horrified citizens who at one time expected the nuclear wastes to be handled in a prompt, competent and reasonable way, I must now stand and shout out for the COMPLETE CLEAN-UP and NO ADDITIONAL WASTES to the Hanford debacle. This is unquestionably one of the greatest crimes against the people of Washington and Oregon states. The undeniable criminality of this case has yet to be adequately addressed. Right now, the complete clean up and no additional waste Must Be the procedure in place. Thank you for accurately representing the will of the people,	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
M. R. Ratterman	General	Really, to put all this near a huge population is criminal. That it has to be done at all is part of the problem of technology getting beyond our comprehension and then paying the price of what to do with waste. A less populated area would be better, and forget about 'income', Washington bureaucrats. Think of the population and that we are in an earthquake zone that, like many other areas of the world, is 'due' for another big one. As to when that happens, we don't get that info. But enough earthquakes have happened in great numbers these last 3 years. Do you really want to gamble with it here? If your answer is 'yes' it is unacceptable	Over 71 years ago the Federal Government started constructing the Hanford Nuclear Site to produce nuclear weapons. The site was chosen in part because of the low population of the area at the time. Since the time the site was selected, the population in the area has grown from several thousand to over 300,000. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Hazards are analyzed and described in Attachment 4, "Hanford Emergency Management Plan," each unit groups Addenda F, "Preparedness and Prevention," and Addenda J, "Contingency Plan." These Addenda identify the hazards that could be encountered from facility maintenance or operations, and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
Madia Pampheilo	General	This morning, I woke up and realized that I have come to Hanford cleanup meetings for 23 years. Now, give me a break. When are we going to get it cleaned up? Here I am again asking that the tanks be reliable in holding radioactive waste. Pouring this material into 40 miles of unlined ditches and covering it over is just a tragedy for all of us, and especially for our coming generations. To even think of 30,000 trucks moving along our highways with these extremely dangerous toxins is actually criminal. With the horrific climate changes taking place, mother earth is telling us and the world we are not cleaning up our planet as quickly as we need to be. And what will it take for the government and DOE to understand the urgency of reissuing a dangerous waste permit and adding no more waste? We really need to think about the geological things that could happen there, and it's so much more dangerous really than we would like to think that it is. So, we really need to take extra care and clean it up as quickly as possible.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Marcus Lee	General	I am resident of Portland, Oregon. I've been a resident of Oregon since June 1973. My family originally came to Oregon by wagon train, then we all left, and we came back. [Inaudible 1:22:17]. I can only speak for what I know and I'll name names. There seems to be something about unlined trenches or trenches of only one lining. I do know that company across the river here in Vancouver [inaudible 1:22:34] was working on this super strong concrete for the nuclear industry in the mid '80s; I assume they're still around. It was Frank Ward that owned it. Ted [inaudible 1:22:50] vice president and a fellow named Rick Phillips was the superintendent. Since you're from the State of Washington, you might want to just check with the people across the river and see what happened. You might want to check also with [inaudible 1:23:05] about concrete about getting stuff lined that's not lined, there's ways of injecting -- there's ways of injecting epoxies, there's ways of injecting, I don't know, concrete, molten lead, whatever it takes. As for CH2M HILL, I guess everybody has their own opinion of them. A fellow I know used to be CH2M HILL named Neil Handyside. He may have been retired [inaudible 1:23:31]. I know him to be a straight shooter. You might want to talk with him and bring him in. It sounds like you've got a big mess. It sounds like you need somebody like [inaudible 1:23:41], but unfortunately don't have too many of those around anymore. I don't know who you could pick to oversee this. I've been on about 250 [mud pours 1:23:55] and it has to be everybody on the ball and -- thank you for your time.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Margaret Carnegie	General	This letter is to strongly state my concerns about safety issues at Hanford. I think it is outrageous that past contamination has not been cleaned up in a safe way. Not only is the local soil contaminated, but that contamination also moves toward the Columbia River, with all those repercussions. And now I understand the Department of Energy wants to send even more waste to Hanford, with Hanford becoming a national radioactive waste dump. There is no way this should be allowed without truly cleaning up all the old unsafe waste and requiring proper treatment of any additional waste.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Margaret Comfort	General	Good Grief! Clean up the trenches that exist. Build adequate containment for hazardous waste. Do not produce hazardous waste and do not allow any near any town or city or populated area. That is simply the only reasonable thing to do. Be safe, this is not a third world country, stop acting like it is.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. No decision has been made to cover-up billions of gallons of discharges from high level nuclear waste tanks. The RCRA Permit Single-Shell Tank Closure Unit Group, Section V.4.D, requires USDOE to conduct corrective actions for the discharges. A draft Ecology decision on those corrective actions will be subject to public comment before Ecology makes its final decision.
Margaret Comfort	General	Monitor the toxic, deadly, poisonous waste according to the law. Do not continue with your plans to skimp on the price and break the law. Monitor it to the levels that you promised to and to the letter of the law. Not by cutting the cost, not by cutting out the truth about the waste and it's danger. You were sworn in and you promised to abide by the law. You work for the people, you are not above the people. You can not hide under a rock.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Margaret Comfort	General	NO MORE DUMPING!!! Not any form of nuclear waste or other hazardous substances ever again at Hanford. Yes is what you need to say to following the laws that are in place and to seeing that the policy reflects the danger, not the dollar sigh. No is what you need to say to further dumping NO! NO MORE HAZARDOUS WASTE!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Margaret Comfort	General	Be responsible, stop further dumping and clean up what is already threatening the lives of all of us down river from the Hanford Site. Generations are at your mercy. Do not fail to do the job you are paid to do. Clean up the hazard and stop further waste from being dumped by a major river that leads to the Pacific Ocean and the rest of the world. You may even save the life of one of your own children or grandchildren by doing the right thing!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Margaret Comfort	General	People live in Portland and people live all along the Columbia River on both sides from Hanford to the sea. People live on the sea and the other life forms people eat live there, of course, too. The government is elected to protect the people from harm. This is simple, this is the law, and this is what must be done. Stop waffling yesterday! Do you think you are reasonably safe where you live? Protect the people from harm!!! Are you paying attention? That is your job. The cost of the clean up must be borne. Obviously the clean up is part of the cost of nuclear power. The cost is dire for centuries, how can you not see this.? Look at Fukushima Daiichi,Chernobyl, or, any place where exposure to radiation waste occurs, there is a deadly, lingering danger. Think of the children and act responsibly. The cost is too high to justify continuing with this dangerous material that has to be vitrified to become stable and even vitrified is deadly. This danger is more eminent than any terrorist or any war. Silent, invisible, unstoppable and deadly when not dealt with adequately. Don't flaunt the law. I don't flaunt the law. Citizens are expected, charged with, abiding by the laws. People who flaunt the laws are supposed to be punished accordingly. Murder will result from flaunting your responsibility to protect the people according to the laws that are in place today. Surely your mind is smart enough to see the facts, the dangers. Children in school buses along the highway will have their health compromised by the transportation of this waste. Anyone on or along the road is at risk of ending up with cancer. Accidents, well, obviously life in general is threatened by the accidents involving the transport of any more of this waste to the site that can realistically occur. Do not add more waste! Accidents with what is already there that produce fire can kill thousands of people where ever the wind blows the deadly stuff. We know this also. This is not conjecture.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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		Native Americans have rights on the Hanford Reservation. Their health must be considered. To protect their health protects the rest of every person and living being around, down wind and down river, from this irresponsible dump. Native Americans have rights to life liberty and the pursuit of happiness as do the rest of the people in your state and mine; and the world. Now that we are fully aware of the dangers, the EPA, the Government in general, and especially a Governor of a state that has the power to stop further dumping needs to treat the toxic dangers responsibly, stop this practice altogether and to protect us all. This deadly poison that has extended life of toxicity will be deadly to, not just of this generation, but the generations to come. Do you have the right to kill for hundreds of years? Think of this and act responsibly now. Be the one to stop the horror now. Do not compromise. Do not be pressured by the dollar sign to sign so many death warrants. You were elected to represent the common man not the power companies. You are paid to do this dearly, with tax payer money. That is what the EPA is paid with. Tax payer money that charges you to do the legally correct thing. You are not immune and you are not landed gentry. You work for the people. Do your job.	

Commenter	Unit Group	Comment	Comment Response
Marilyn Emerzian	General	I am writing to express concern over the transportation of 17-30,000! truckloads of radioactive waste through downtown Portland as it travels to that horrifically contaminated waste site of Hanford. Why is it okay for the federal government to by their own admission---force a lottery of death on public citizens, especially children--as these trucks drive by? What about accidents? And the risk to your beautiful Columbia River?	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Marilyn Emerzian	General	Please don't allow any more off-site waste into Hanford, regardless of what USDOE proposes now or in the future. Clean ups must be done first if the ground water and health standards are projected to be at risk of contamination. ... Although I am not a resident of Washington, I feel that no one place like Hanford, the most contaminated spot in the Western Hemisphere, should be a repository for what I consider the evils of "nuclear energy." If citizens around the country allow politicians to build nuclear power plants in their communities, they should clean up and store the "consequences" and not send it off to make someone else suffer for it.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Marilyn Emerzian	General	The USDOE has committed past violations at Hanford and now wants to cover-up 40 miles of unlined ditches and billions of gallons of discharges from high level nuclear waste tanks, with mere dirt?? This is outrageously irresponsible. Please apply the RCRA permit to impose and oversee USDOE completes a 100% thorough cleanup--don't allow clean up on their terms.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. No decision has been made to cover-up billions of gallons of discharges from high level nuclear waste tanks. The RCRA Permit Single-Shell Tank Closure Unit Group, Section V.4.D, requires USDOE to conduct corrective actions for the discharges. A draft Ecology decision on those corrective actions will be subject to public comment before Ecology makes its final decision.
Mark Brady	General	The fear I have about the scope of the radioactive pollution that exists at Hanford and the probability that at some point down the line the Columbia will be included in that severe pollution and it will spread with unknown consequences was not at all helped by the Dangerous Waste Permit proposal. I want my children's children's children's etc to have confidence that we cared what their life would be like.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Mark Reavis	General	The Hanford Advisory Board (HAB) September 6-7, 2012 meeting addressed what may or appear to be a complex set of additional recommended mandates to the U.S. Department of Energy (DOE) by advising additional revisions to the Washington State Department of Ecology (Ecology) current processes, which may or are in most cases already in place (Washington State Administrative Code [WAC], Tri-Party Agreement [TPA], Resource Conservation and Recovery Act [RCRA]). These additional recommendations could require substantial additional comment periods that could delay or detract from schedules, and could adversely affect costs, timelines and conflict with living documents such as the TPA. The advice throughout the 31 recommendations asks for revisions of the current agreed to and followed processes currently in use relating to permitting (HAB Advice #262, bullets 1, 7, 9, 14, 19, 20, 21, 26, 27, 29, 31).	Hanford Advisory Board advice #262, submitted by Board Chair Susan Leckband, was responded to in both this response to comments document and in Ecology's formal response to HAB advice #262. See responses to comments address to Susan Leckband for the complete set of comments and responses submitted by the Hanford Advisory Board.
Mark Reavis	General	Additional advice recommended that could impact engineering and scientific design is found in HAB Advice #262, bullets 11, 21, 29. The processes at the Waste Treatment and Immobilization Plant (WTP) still being engineered and designed are complex and have many engineering and scientific challenges that will never have 100% consensus. Ecology admitted concerns with this recommendation when asked.	The phased permitting approach implemented for the WTP Permit provides Ecology with the opportunity to review the sound engineering principles and capabilities incorporated into the WTP design before equipment was installed in the facility. These design deliverables included engineering drawings, Independent Qualified Registered Professional Engineer integrity assessments, and independent corrosion evaluations. The permittees will demonstrate the technically functional elements of the facility through testing and integrity assessments. The WTP Permit includes requirements for ongoing operation and maintenance of equipment, when necessary.

Commenter	Unit Group	Comment	Comment Response
Mark Reavis	Parts I & II	Additional advice recommended in regards to onsite or offsite waste, found in HAB Advice #262, bullet 23 has legal implications relating to the com1 decisions. I would concur with Board members that argued this point of concern and the elimination of wording may have not been the answer or compromise. I also question that taking the position of no waste from other sites is supp011ing the Nevada com1 case which may impact and change where our high level waste may be stored.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford. The following is the final decision and path forward for addressing this issue: USDOE and Ecology mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Mark Wahl	SST	Require that huge existing single-shell tanks be over 99% emptied of content and the tanks closed, not just covered up.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Mark Wahl	General	Investigate and classify all waste in the 40 miles of trenches, not just a few pieces.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Mark Wahl	General	Greatly increase monitoring with many more wells and soil column tests.	Groundwater Monitoring Plans within the Hanford Site-wide Permit, Rev. 9A have been updated to reflect the most current information for each TSD facility. When the Groundwater Monitoring Plans need to be updated, they will be submitted by the Permittees through a permit modification, according to WAC 173-303-830.
Mark Wahl	General	Require that all illegally stored wastes be removed for classification and treatment on an aggressive schedule.	The permit only addresses dangerous and mixed waste regulated under the Washington State dangerous waste regulations, WAC 173-303. Most of the radioactive wastes buried in the unlined trenches are not regulated by WAC 173-303 and therefore these areas are not addressed by the permit. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Mark Wahl	General	Impose strict limits on the types of waste permitted to enter Hanford.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: USDOE and Ecology mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Mark Wahl	SST	The State should not/may not issue continuing permits for the filled single shell tanks (SSTs) given that they have already leaked over a million gallons of radioactive waste creating a plume proceeding to the Columbia River, our fish stocks and our wildlife. What is it that the state doesn't understand about dangerous radioactivity, death and destruction? How can this non-compliant, deadly situation be helped by hauling in 30,000 truckloads of radioactive waste to be stored in boreholes and landfills as proposed by the USDOE, the officials of which don't live in Washington and don't have to have their offspring ingest salmon that have swum in the Columbia and spread out to the whole west coast of Washington?	The single-shell tanks are not currently active and are considered a closure unit. The permittees are not allowed to accept more waste and since each WMA location is different, closure plans will be created for each WMA. To reduce the risk of leaks to the environment the bulk liquid portion of most of these tanks was removed and pumped into the Double Shell Tanks (DSTs). This was referred to as interim stabilization. Ecology is working with the permittees to close the SSTs safely and to protect human health and the environment during the extended closure period.

Commenter	Unit Group	Comment	Comment Response
Mark Wahl	DST	DSTs will likely leak before 2040, a microscopic time scale compared to the half life of the dangerous radioactive materials in the tanks. Where are the obvious conditions needed on how the chemical balance and waste level in DSTs are to be maintained to prevent just more leaks in the near future and beyond 2040, a mere minute on the clock of radioactive half-life? Let's see some regulations on how fast leaks are to be responded to when they do happen, to prevent irreparable damage to our water.	Leak response is governed by permit conditions III.12.H.2.
Mark Wahl	General	Let's see some regulations on how fast leaks are to be responded to when they do happen, to prevent irreparable damage to our water. Let's have nearby commercial treatment facilities start to treat waste to chew into this massive overload of waste. And what about an Environmental Impact Statement before the Hanford Dangerous (Hazardous) Waste Permit can be issued, so the public and Ecology can assess what's really going on and needed rather than playing guesswork, bait-and-switch, and by-guess-and-by-golly-games?	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has expanded upon the SEPA Determination in accordance with WAC 197-11. For more information, please see overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit.

Commenter	Unit Group	Comment	Comment Response
Mark Wahl	General	Washington state has the authority to grant permits for the USDOE's use of Hanford for hazardous waste storage. This gives us citizens the authority to protect ourselves from careless practices regarding our lands and resources. The Hanford site borders the Columbia, a major source of salmon and irrigation water. Ground water has already emerged near the Columbia with radioactivity within it and the plume of leakage from storage tanks is known to be migrating toward the Columbia. Permitting this to continue and expand is unacceptable for the citizenry of WA. Over 40 miles of unlined ditches are filled 50 feet deep with unsorted, unclassified "waste" which has at times caused great concern with leaks and explosions. There is no regulation on the planet that will permit this kind of haphazard storage of highly toxic wastes in so cavalier a style yet we find this routinely at Hanford. There can be no question whatsoever that the "Clean-up First" principle should be applied when USDOE applies to truck mountains more of poorly classified waste to the beleaguered site. Now is the time to be strong and clear lest these sloppy practices be institutionalized by a Washington state permit.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Martin Bensky	WTP	How much cancer will be prevented by vitrifying low-activity waste? There is no doubt whatever that the answer is zero, but cost is apparently not a criterion in selecting preferred alternatives. Credible risk assessments have been conducted, and it is hard to understand in the light of results well-known to the U.S. Department of Energy (USDOE) why any tank waste at all is being retrieved and processed in a $12B vitrification plant...other than the economic stimulus it provides to the Tri-Cities and to the carpetbaggers from Oregon and the west side. More harm will be done by the retrieval, vitrification and disposal operations than would ever result from in situ disposal of tank waste, even including leakers. The analyses conducted by USDOE showed clearly that doses to humans at any time in the future were not only unlikely to cause harm, but were caused almost entirely by material that had already leaked from the tanks and will not be retrieved. In a nutshell, there are no credible scenarios by which harmful amounts of any toxic substances will be ingested by humans or any other fauna in the future out to any time frame you want to consider. The assumptions required to justify retrieval and vitrification are so outrageous and outlandish that only people who will personally profit from this ridiculous course of action, or who are so ill-informed and hysterical, would advocate continuation on this path. I should note that is terribly sad that when Ms. Charbonneau suggested that a second look at the reasonableness of vitrifying low-activity waste might be warranted, there was apparently no follow-up or subsequent conversation about that possibility. I hope her punishment was not too severe.	The permittees are required to retrieve and compliantly dispose of the Hanford tank waste. The Waste Treatment and Immobilization Plant has prepared and Ecology reviewed and approved the Preliminary Risk Assessment to assess the lifetime cancer risk from WTP operations and found no increase in cancer risks. Retrieval and immobilization through vitrification of the low-activity waste from tanks significantly reduces a primary risk driver for the Hanford Site.
Mary Daub	General	Please do your very best to keep the environment and the public safe from the mess of chemical and nuclear waste at the Hanford site. Thank You.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Mary Duvall	General	I just want to add my voice to all others who want Hanford cleaned up as immaculately as humanly possible. The danger of radioactive materials reaching the river is too horrible to contemplate. This project outlasts the lives of those who work on it and must be organized in such a way that the clean up continues and all waste is contained in such a way as to offer no hazard at all to the river and the surrounding areas ever.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Mary Hanson	General	I just want to thank everybody who has come and all of you for listening. I'm amazed at the quality and thoughtfulness of most of the questions. I mean, I really want you to take them all very, very seriously. I can't believe -- when I got my education in high school, my best teachers were my physics and chemistry teachers, and it was the area where I have the lowest ability. I'm not a chemist. I'm not a physicist. But they taught me how to think. What you're hearing tonight is people thinking really well. I am concerned, as the comment was just made, that some of the younger people coming along today may not be getting the level of education they're going to need to face these issues as they inherit them, and that is of great concern to me. So, I think it's on us, our generation. I'm in my 60's. I think we've got to solve this stuff. I think we cannot kick the ball down the road. I think that would be hideous and immoral to do that. So, I agree that there's got to be a Plan B, there's got to be, and that it may be relatively simple, that maybe they're making things too complicated, but the idea of double-wall tanks made out of the appropriate steel makes a lot of sense. So, the idea that we be much, much more proactive and less reactive in general makes tons of sense. I was so saddened when I saw all the things on PBS about the people that were pointing out the problems at Fukushima. I mean, all the issues that caused the problem at Fukushima had been pointed out. We are lucky to be here at a time when we have the luxury of knowing many of the problems and many of the positive possible solutions. This is amazing. But we don't have all the time in the world and the issue of earthquakes, the issue of global warming, all these issues that have been brought up tonight tell us that. We don't have all the time in the world, we have to be more proactive. But, we do have the advantage of all this incredible knowledge and so my feeling is, if we could get making money on it out of the picture, if we could take having to somehow appear to be right and not being able to admit when we're wrong and change course out of it, if we could take ego out of it, if you will, and really focus on cleanup, just focus on cleanup, I think we can do this. I think we can avoid a catastrophe. But if we aren't that proactive, I think that we are really courting a disaster that doesn't need to happen.	The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup. Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Mason Taylor	General	Off site waste: Add language that bars offsite waste from being added to any landfill at Hanford, including any new landfill, vault or boreholes that USDOE may propose in the future.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Mason Taylor	SST	Single Shell high-level nuclear waste tanks: Do NOT allow USDOE to leave 1% of the waste. This last 1% of volume may contain 10 to 20% of the metal radionuclide content. Please follow WA state Hazardous waste laws which require finding contamination and removing it, NOT just covering it up.	The Hanford Federal Facility Agreement and Consent Order (HFFACO), Appendix I, requires the Permittees demonstrate achievability of waste. The Permittees will remove as much waste as possible and Ecology will work with them to determine the percentage of residual waste may be left in the tank. The SST System has been determined to be closed as landfill, therefore the Permittees will close the SST System in accordance with WAC 173-303-640(8). Currently there is no technology that can removed these tanks safely, because of their size and amount of contamination. Ecology's main goal is to protect human health and the environment until and after closure of the Tank Farms, trenches, and facilities.

Commenter	Unit Group	Comment	Comment Response
Mason Taylor	General	Unlined ditches: ALL forty miles of trenches must be regulated. Require USDOE to EITHER remove and treat radioactive and hazardous wastes OR investigate and characterize wastes in the trenches. There should be hundreds of wells around these 40 miles of ditches, so please require column monitoring and groundwater monitoring.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Mason Taylor	General	Stored mixed waste at central waste complex: Do not accept new waste. Require all wastes to be removed for characterization and treatment on an aggressive schedule. Thank you.	The CWC permit Addendums and conditions have been edited and revised to ensure compliance with WAC 173-303-630(8), Use and Management of Containers. All waste has been removed from Outside Storage Area A, an approved Closure Plan is currently in Rev. 8C of the Hanford DW Permit, and closure activities began at OSA-A in February of 2026.
Mason Taylor	General	The federal government employed my mother to persuade farmers to sell their land to build Hanford at a time of racist hysteria. Some farmers gave their land away. Others refused and lost their farms by eminent domain. Though the Japanese had no such intentions, she and many others were in a panic that at any day, any hour the Japanese would invade this state after their Pearl Harbor victory. Blockading Japan was a provocative act of war and Japan's retaliation at Pearl Harbor should have been no surprise. It gave FDR a convenient excuse to formally declare war at a time when almost all Americans, like most people at all times everywhere, just wanted peace, justice and a good paying job. My father, US Navy, was stationed at Hanford. I was born in Pasco during WW II. My brother was born 3 years after me. We were exposed to radiation before moving to Seattle. Type 1 diabetes, among other things, resulted in 2 of our family of 4. When we would return to visit my grandparents in Spokane my father always refused my and my brother's pleas to stop at various parks along the Columbia River. What he knew or suspected about radioactivity and Columbia River contamination he never told me.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Hanford Challenge is concerned with the lack of information submitted with the permit application. The Permit cites many external documents and processes as Permit conditions. Documents linked to the Permit may undergo significant change – impacting conditions within the Permit – without ample opportunity for public review and comment. We were also troubled by the limited release of the Waste Treatment Plant (WTP) portion of the Permit, and emphasize that more information should have been available to the public. Information required to write a Permit should have been submitted with the Permit Application in 2004. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. The draft permit does not comply with this EPA directive. Hanford Challenge Recommends that Ecology: 1) Spell out Specific Permit conditions within the Permit – rather than referenced as a part of a separate plan or agreement or supporting regulation. 2) Make all portions of the Permit (drawings included) should be publicly accessible electronically, unless a specific legal exemption applies (such as proprietary information). 3) Include permanent links to all citations to external documents either as appendices to the Permit or on Washington State servers. 4) Afford external processes and documents offer the same degree of public review and comment as required for RCRA permit review. For example, if a change were made in the RCRA permit that would require public review and comment, then the corresponding document/process needs to also require at least public review and comment.	1. First the standard and unit-specific permit conditions have been revised for the renewal. There may be occasions in which we will reference external documents in the permit conditions or in permit documents. 2. The Hanford Site-wide Permit both Rev. 8C, 9 and 9A are available electronically. 3. We had provided hyperlinks early on, however, the linked sites changed so often it became difficult to keep them current. 4. All changes to permit documents under WAC 173-303-830 and -840 are subject to notification to the public or public review.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Hanford Challenge is concerned by repeated references in the Permit where Ecology yields authority to either the U.S. Environmental Protection Agency (EPA) via CERCLA actions, or to the regulated entities at Hanford-the U.S. Department of Energy (DOE) and its contractors. The Permit's use of suggestive language such as, 'Ecology may accept,' does not meet permit requirements for closure details. The unit descriptions imply closure actions to be done under a CERCLA work plan authority rather than the RCRA permit. The prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements is troubling at best when CERCLA documents do not yet exist. The use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303-610]. Hanford Challenge Recommends that Ecology: 1) More clearly and explicitly state and exercise its Resource Conservation and Recovery Act (RCRA) authority in the Permit. 2) More prescriptive language in the Permit when referencing Permit conditions and the permit should contain enforceable words such as "shall" and "must."	In order to meet the state's regulatory requirements for corrective action (WAC 173-303-64620), the cleanup action that is under CERCLA authority must meet all applicable, relevant and appropriate requirements (ARARs) stated in the CERCLA Record of Decision. These requirements include that the final action cleanup must not exceed the State's total risk of 1 x 10-5 and hazardous Index (HI) = 1 (WAC 173-340). If Ecology concludes that the ROD can't meet the requirements, then Ecology may impose corrective action requirements through the permit modification process (permit condition II.Y.2.a.iii). DOE may appeal the state's application of permit requirements in addition to the ROD requirements. For closure, the closure performance standard is established in the closure plan. These will typically also be the total risk of 1 x 10-5 and hazardous Index (HI) = 1 for clean closure. The state does have the option of establishing alternative requirements however, certain threshold criteria have to be met in order to use alternative requirements. Further, the alternative requirements must be established in an enforceable document. The state would not yield authority to either the EPA nor to DOE for closure using alternative requirements, given that the requirements would be established in an enforceable document.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	The Permit Fact Sheets are incomplete and do not meet WAC 173-303-840 for decision making. The Hanford permit is a subject of wide-spread public interest and one that raises major issues. Its fact sheet is significantly important because of this and requires a very factual, legal description of the permit conditions and a detail basis for the draft permit conditions including supporting references. Fact Sheets are required to give reasons why any variances or alternatives to required standards do or do not appear justified. The fact sheets in this draft permit do not provide detail, facts and basis for why a permit condition was decided. The fact sheet language only rephrases each permit condition into a statement sentence. There is no explanation or reason for a permit condition or references to procedures, etc., in the administrative record. These fact sheets are nothing more than another public notice description of the unit and provide very little to publicly comment or understanding of the unit conditions. Hanford Challenge Recommends that Ecology: Provide better, well written fact sheets for a complex permit. Provide training and guidance to staff and permit writers on fact sheets and their purpose. Follow the requirements of WAC 173-303-840 for decision making with permit conditions.	Ecology made a significant effort to include more detail in the technical Fact Sheets. The Rev. 9A Fact Sheet provides detail as to the process for the revised renewal, as well as information on the issues discussed, unit groups and addenda included in the permit, and information on the revised standard permit conditions and why they were revised. Each unit group includes their own technical fact sheet and the information should be included as to the changes that were made from the 2012 Hanford Site-wide Permit, Rev. 9.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	The use of compliance schedules are found in the following units: WTP, 1301-N LWDF, 1325-N LWDF, 1324-N&NA, 183-H SEB, 1706-KE, 216-S-10P&D, 216-A29 Ditch, 216-A37-1 Crib, 216_A-36B Crib, 216-B-63 trench, 216-B-3 Main Pond, 207-A SRB, 241-CX Tank, Hexone tanks, LLBG Trench 94, LLBG Trench 31/34, NRWLD, CWC, WRAP, T-Plant. Ecology issued an incomplete final Hanford permit in 1994. Ecology again proposes to issue an incomplete final permit in 2012. None of the above units had final status in 1994 and now after 18 years the Nuclear Waste Program still cannot issue a final Hanford permit to include the 21 units listed above. WTP is the only one of these units currently under construction and may justify a compliance schedule. The other 20 units do not justify a compliance schedule because the items missing such as required ground water monitoring plans, closure plans, sampling and analyses plans, waste analysis plans, engineering designs, post closure plans and Part A information are final facility permit requirements for dangerous waste facilities under WAC 173-303-806. USDOE is required to submit a complete permit application for a final facility permit. The application is a Part B and must be signed and certified to Ecology. This application must include a Part A, waste analysis plan with sampling analysis plan, closure plan, post closure plan (if subject to post closure) and groundwater monitoring plan for the appropriate unit. Under WAC 173-303-806 (8) Ecology will not issue a final facility permit before receiving a complete application. Ecology determines when the application is complete and for writing a final permit. WAC 173-303-840 (a) states that the department will not begin the processing of a permit until the applicant has fully complied with the application requirements for the permit. USDOE submitted a dangerous waste Part B permit application for all of Hanford to Ecology in 2004. Ecology had to determine the application was complete to draft a final permit for public comment. A complete application would require the pieces mentioned above. Why are there compliance schedules for 21 units after a permit application and 18 years to write a new permit? This “Rev 9” draft permit appears to be incomplete, illegal, and misleading to the public. The public deserves a permit to make us safer and USDOE accountable.	The original permit application for the Hanford Facility was submitted in 1994. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Following the public comment period for the permit renewal in 2012 and after receiving over 5,000 comments, Ecology developed a path forward to prepare a revised permit renewal. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group. Compliance schedules are reserved only for unit groups such as the Waste Treatment and Immobilization Plant permit, which is under a phased permitting configuration. We agree, that compliance schedules should not replace complete permit documents. More details of the specific completeness determination letter, other historical details from the development of the permit renewal are outlined in Ecology's technical fact sheet for the Hanford Site-wide Permit, Rev. 9A. In addition, the fact sheet outlines the process in which Ecology and the Permittees set forth in 2013 to ensure an enforceable, compliant, consistent and implementable permit. Ecology developed permit application guidance specific to the Hanford Site-wide Permit, and reviewed all Rev. 9 permit documents against the guidance. Ecology and the Permittees held workshops to work through deficiencies. The result is a heavily revised permit renewal, which is why the Hanford Site-wide Permit, Rev. 9A is not in redline/strikeout. Technical fact sheets for each unit group provide information on the modifications made since the 2012 renewal.

Commenter	Unit Group	Comment	Comment Response
		Hanford Challenge Recommends that Ecology: 1) Review all of WAC 173-303-840 and ensure the permit is in compliance. 2) Provide the following answers and the documentation that supports it: - Was a Part B permit application submitted to Ecology from USDOE? Was the application complete? - Did Ecology determine that the Part B application was complete? When was the determination made? - Did Ecology send a letter to USDOE stating that their application was complete? When was the letter sent? Provide a copy of the letter. - If Ecology did document that the USDOE permit application was complete, explain why the draft permit is requiring permit application information after issuance of the permit authorizing these units to conduct dangerous waste activities on insufficient information. - Since EPA has authorized the RCRA program to Washington state and over sees Ecology, provide documentation that EPA approved of this application process and permit conditions or have EPA respond to parts of this comment. - Withdraw all 20 deficient units of the draft permit and rewrite them so the public can have a sufficient and compliant permit to review. Or, provide the legal basis for proposing an incomplete permit as an authorized state program.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Worker Health and Safety Under RCRA: Congress intended for RCRA to be used to product human health as well as the environment. As such, courts have applied RCRA to in the industrial health context. Hundreds of employees work in and around the Hanford tank farms on a daily basis and around the clock. Pipefitters, construction workers, electricians, millwrights, nuclear chemical operators, health physics technicians, and others comprise the bulk of workers who routinely encounter potentially deadly vapors from the more than 1200 chemicals that can and do escape the tanks. Cancer, to say nothing of a number of illnesses, injuries and adverse health effects already documented at Hanford, does constitute a serious harm "substantially" affecting workers' well-being. Furthermore, DOE-sanctioned cancer risk assessments, along with evidence of widespread health effects of vapor exposure, should support a finding that exposure "substantially" endangers workers, by subjecting them to a strong likelihood that their health will suffer. Handling the waste at the Tank Farms without the proper equipment puts workers at risk of inhaling the hazardous chemical gases contained in the tanks or even being splashed with the toxic and radioactive liquid waste. The threatened harm is immediate and can lead to serious adverse health effects. In RCRA, Congress provided citizens with the right to protect their heath and the environment by bringing suit for injunctive relief from "imminent and substantial endangerment." 42 U.S.C. § 6972(a)(1)(B) (Westlaw 2008). Specifically, the statute states: any person may commence a civil action on his own behalf…against any person, including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution, and including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment…. The Proposed Permit is silent on worker health and safety issues such as the chemical vapor exposure issues, which should be corrected. Hanford Challenge Recommends that Ecology incorporate in the permit	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C.

Commenter	Unit Group	Comment	Comment Response
		and acknowledge its authority to use the imminent and substantial endangerment provisions of RCRA to protect the workers from unsafe working conditions. Ecology should exercise its RCRA authority to require characterization and an adequate level of protection for personnel in uncharacterized (and uncharacterizable) work environments. Though mainly used for environmental protection, courts have also used RCRA in industrial health contexts and have recognized Congress's expansive objectives in enacting the legislation.1 Congress provided opportunities to bring suit against those who present an imminent and substantial endangerment to health or the environment while contributing to the handling of solid or hazardous waste. One section of the law allows the EPA or equivalent state agency to "bring suit … against any person … who has contributed or who is contributing to such handling, storage, treatment, transportation or disposal to restrain such person from such handling, storage, treatment, transportation, or disposal, to order such person to take such other action as may be necessary, or both." 42 U.S.C. § 6973(a). Congress intended and courts have held that RCRA to protect human health as well as the environment. Because Hanford Tank Farm workers have no other viable legal options, the Department of Ecology, should ensure safe working conditions and be prepared to use the "imminent and substantial endangerment" provisions of RCRA to ensure those safe conditions exist.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	The use of Omnibus Authority or WAC 173-303-815 (2) in permit conditions: There are several permit conditions throughout this permit that establish requirements outside WAC 173-303. If a permit includes permit conditions necessary to achieve compliance and protect human health and environment the permit must include the basis for these permit conditions. The basis and justification for omnibus authority permit conditions in the permit cannot be found in any fact sheet information. Hanford Challenge Recommends that Ecology provide the permit fact sheet basis for these permit conditions or delete them. Every permit condition requires a justification for the decision in the fact sheet.	Ecology heavily revised the standard permit conditions and the unit-specific permit conditions. The standard permit conditions were updated to be consistent with Washington State model permit conditions. For a more detailed account of why the standard conditions were updated, review the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Unit-specific permit conditions were updated to reflect permit guidance, as well as to reflect enforceable permit language and requirements needed for the specific unit groups. Ecology received comments regarding the use of omnibus authority. Going forward, Ecology developed a checklist and guidance for those occasions in which omnibus was used in any permit document to ensure it is being used appropriately and is justified.
Meredith Crafton	General	Off-Site Waste - There has been a considerable amount of concern expressed in recent years throughout the region over proposals to bring additional waste to Hanford for disposal. Some of the proposals would bring potentially significant volumes of highly radioactive waste to Hanford. Like others throughout the region, Hanford Challenge opposes these proposals. Safely managing the wastes that are already on site is a significant challenge in and of itself and DOE predicts long-term impacts to groundwater due to the existing waste volumes already disposed at Hanford. We recognize that there are some limited waste streams, including Navy reactor compartments, which are currently allowed to come to Hanford. We do not oppose these limited waste streams based on their limited impacts. Hanford Challenge Recommends that Ecology: 1) Exercise its authority – either through the Permit or through other means – to ensure that off-site wastes do not come to Hanford for disposal, except as noted. 2) Specify the allowed waste in each unit to preserve the public's ability to comment and intervene if DOE requests to add other wastes.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Meredith Crafton	General	1. Modified/Partial closure of an individual unit is not authorized under WAC 173-303 regulations and therefore should not be included as an option in permit closure (see 1325-N).	Ecology agrees. Modified closure is not a closure option. Ecology will work with the permittees to provide alternative closure requirements.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	2. All unit-specific groundwater monitoring plans should be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies. This is not a required condition in most permits.	All units specific groundwater monitoring plans are consistent with the Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.
Meredith Crafton	General	3. Permit unit specific Contaminant of Concern lists do not encompass the full range of contaminants. Ecology should include in each unit-specific Permit the full list of COCs as noted or identified in unit- associated draft RI/FS documents previously submitted to Ecology (e.g., DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7).	The updated Hanford Site-wide Permit, Rev. 9A permit documents include a complete list of contaminants of concern.
Meredith Crafton	General	4. Permit conditions do not require use of a methods-based approach in the unit-specific Sampling and Analysis Plans. Nor is use of non-filtered sampling in the Sampling and Analysis Plans required. Ecology should require these per the WAC 173-303 regulations.	We agree. Ecology developed Waste Analysis Plan guidance that requires development of SAPs. Permit conditions II.D reinforce the requirements within the WAP guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.
Meredith Crafton	General	5. Permit conditions do not, but should require repairs and replacement of wells per WAC 173-160.	The Permit conditions do require repairs and replacement of wells per WAC 173-160 through WAC 173-303-645(8).
Meredith Crafton	General	6. Permit conditions do not, but should require coordination and incorporation of RCRA inspection requirements for the unit-specific permits with those for the associated CERCLA groundwater operable unit's. Inspection should at a minimum, be on a semi-annual basis.	RCRA inspection requirements for unit-specific conditions are enforceable through the permit authority. Inspection requirements are addressed on a unit-specific basis in Addendum I "Inspection Plan, "Addendum D "Groundwater Monitoring Plans" and unit-specific conditions, as appropriate.
Meredith Crafton	General	7. Permit conditions do not, but should ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b).	The standard conditions II.J include requirements closure in accordance with WAC 173-303-610.
Meredith Crafton	General	8. Statements are made in permits to the effect that the Permittee may make the determination that the unit can't meet clean closure standards. These statements should be deleted and text rewritten to reflect that Ecology makes permitting decisions in accordance with WAC 173-303.	Closure plans were updated to reflect requirements for the Permittee to meet clean closure standards.
Meredith Crafton	Parts I & II	9. Permits do not identify list of other applicable laws or required permits nor are there conditions which reflect how compliance of these will be achieved.	Other applicable laws or required permits are included in Addendum A, ""Part A Form"" for each unit group.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	10. In Section I.A.2 the permit states, “Compliance with this Permit constitutes compliance with WAC 173-303-140, WAC 173-303-180, WAC 173-303-280 through 395, WAC 173-303-600 through -695, WAC 173-303-810, and WAC 173-303-830, except for permit modifications and those requirements that become effective by statute or are adopted under 40 CFR Part 268 restricting placement of dangerous waste in or on the land.” Additionally, 8) Effect of a Permit says “compliance with a final facility permit during its term constitutes compliance for the purpose of enforcement with Chapter 173-303…” This current permit condition text is incorrect and deviates from standard language used in other WA state permits. Hanford Challenge Recommends that Ecology: 1) Explain why this permit language deviates from standard language used in other WA state permits. 2) Change the text to agree with the regulation and its intent: Pursuant to WAC 173-303-810(8), compliance with this permit during its term constitutes compliance for the purpose of enforcement with Chapter 173-303 WAC for waste management activities covered under this permit except as provided for in WAC 173-303-810(8)(a)(i) through (iv). Compliance with this permit does not constitute a defense to any order issued or any action brought under other state or federal laws or regulations.	The standard Part I and II permit conditions were revised to be consistent with Washington State model permit conditions. Permit Condition I.A.2 has been updated. For more information, see the Hanford Site-wide Permit, Rev. 9A technical Fact Sheet. It provides information on the changes to the standard permit conditions since Rev. 9.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	11. Standard and General Permit Conditions are required by WAC 173-303-810 and should not be in conflict with another permit condition. Section I.A.6 reads, “In the event that a unit specific permit condition in Parts III through VI conflicts with the Part I Standard Conditions and/or Part II General Facility Conditions of the Permit, the unit specific permit condition will prevail.” Parts 1 and 2 permit conditions are enforceable in all WA state permits. Ecology should be resolving the unit permit condition, not the other way around. Parts 1 and 2 should prevail. Hanford Challenge Recommends that Ecology: 1) Provide the regulatory basis for 1.A.6. 2) Review the WAC 173-303-810 requirements and change the permit condition text to follow the WAC requirements and establish compliance with the permit language.	Ecology agrees, the standard conditions prevail over the unit-specific permit conditions. The standard permit conditions were revised to reflect Washington State model permit conditions.
Meredith Crafton	Parts I & II	12. Under section I.E.3 Duty to Mitigate, the Permit Condition reads: “In the event of noncompliance with the Permit, the Permittees will take all reasonable steps to minimize releases to the environment, and will carry out such measures as are reasonable to minimize or correct adverse impacts on human health and the environment.” [WAC 173-303-810(5)] WAC 173-303-810 (5) actually says: “The permittee must take all steps required by the department to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.” Hanford Challenge Recommends that Ecology: · Ensure that Hanford follow the regulations as written like other dangerous waste facilities in Washington. · Explain why these general permit conditions that are less stringent than the WAC. · Delete the current draft language and provide the correct WAC 173-303-810(5) language for Duty to Mitigate in I.E.3 in this permit.	Ecology revised the permit condition to be consistent with WAC 173-303-810(5), as well as Washington State model permit condition language.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	13. Section I.E.4.b permit condition reads “In the absence of manufacturer’s instructions or applicable regulatory or code requirements, the Permittees will apply generally accepted operating or engineering practices as necessary to achieve proper operation, maintenance, and protection of human health.” [WAC 173-303-810(6)] This language is not in WAC. It appears that Ecology is rewriting general permit conditions and in a way that is less stringent than the regulations. Hanford Challenge Recommends that Ecology: · Show where in WAC 173-303-810 (6) this language appears and where the regulatory basis to include this language in a permit. · Demonstrate how Ecology enforce this permit condition because the current condition is not enforceable as written · Describe where in the Hanford Part B permit application and the permit fact sheet is the justification for the reasons the required standard is changed. · Either provide answers/justifications to the questions above and/or remove this permit condition from the permit.	We agree and the permit condition is removed from the I.E portion of the standard conditions.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	14. In I.F.2.a Monitoring Records states, “The Permittees will comply with the requirements of WAC 173-303-810(11)(c), incorporated by reference,” and I.F.2.b states, “The Permittees will comply with the requirements of WAC 173-303-810(11)(d), incorporated by reference.” This does not provide where the ground water monitoring records requirements are. Is one to look to Part 1 and 2 or to unit specific requirement? Further, the Permit does not include Ecology approved and Dangerous Waste WAC 173-303 compliant RCRA Groundwater Monitoring Plans as attachments to unit specific Permits within their Closure Plan Addenda. Groundwater monitoring plans are not consistent with the DW regulation requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. Hanford Challenge Recommends that Ecology: · Clarify where groundwater monitoring records requirements are in this permit. Add them here if appropriate. · Clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). · Clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements.	Addenda D, "Groundwater Monitoring Plans," contains the approved groundwater monitoring plans for all regulated units in the permit in the unit-specific chapters. All dangerous waste constituents, their concentration limits, points of compliance, and general groundwater monitoring requirements are contained as permit conditions or in the groundwater monitoring plans. In the standard permit conditions, there are requirements for groundwater monitoring in II.F.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	15. Section I. F.6 Emergency Reporting and I.F.6.a states, “Permittees will comply with the requirements of WAC 173-303-360(2)(k), incorporated by reference, with documentation reflected in both the Hanford Facility Operating Record, General File and unit-specific file(s) as appropriate.” However, WAC 173-303-360(2)(k) is clear that reporting will go in the operating record and defines what elements go in the report. Why is the permit condition confusing the requirement by adding “documentation reflected?” It appears that Ecology is rewriting standard permit conditions that are less stringent or conflict with the actual requirement making it harder to enforce the permit condition. Hanford Challenge Recommends that Ecology: · Define “documentation” as it applies to this permit condition. Define “general file” as it applies to this requirement. Define and clarify what “as appropriate” means in this permit condition. · Remove the ambiguous wording in the permit condition and use WAC 173-303-360(2)(k) as it is intended. If Ecology does not change the language, provide the justification and regulatory basis to keep it as is.	Agreed. Ecology revised Permit Condition I.F.6, which is now renumbered to I.E.8.d, in which it states, "The Permittees must meet requirements for reporting and writing submissions in WAC 173-303-360(2)(k) in the event of spills, releases and other emergencies.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	16. Section, F.7 Other Non-Compliance, I.F.7.a states, “Permittees will report to Ecology all instances of noncompliance with this Permit not otherwise reported according to Permit Conditions I.F.4, I.F.5, or I.F.6. These reports will include applicable information required by WAC 173-303-810(14)(f), incorporated by reference. This report will be submitted at the time the Annual Dangerous Waste Report is submitted. An instance of noncompliance under this requirement may instead be documented by inclusion in the Hanford Facility Operating Record maintained pursuant to Permit Condition II.I. [WAC 173-303-810(14)(g)]” Permit condition F.7 and I.F.7a does not meet the requirements of the WAC regulations in WAC 173-303-810(14)(f) and (g). Section14(f) requires immediate reporting for any non-compliance verbally and within 5-days, and 14(g) requires reports of other non-compliance at the time monitoring reports are submitted not once a year. Where is Ecology’s justification for re-writing a permit condition less stringent than the regulation? How will you enforce “may instead” language according to the regulation? Further, what instance of noncompliance may instead be documented in an operating record under WAC 173-303-810(14)? Hanford Challenge Recommends that Ecology: · Ecology should provide the permit fact sheet justification and/or Part B permit application material that allows Ecology to authorize this change in a standard permit condition requirement. · Justify the enforceability of this permit condition. Or re-write the permit condition so that it meets the regulation and is enforceable.	Agreed. Ecology revised I.F.7.a, now numbered I.E.8.a and I.E.8.b to read, "The Permittees must meet requirements for immediate reporting and written submissions in WAC 173-303-810(14)(f) for noncompliance which may endanger human health or the environment. Also, I.E.8.b it reads, "In accordance with WAC 173-303-810(14)(g), the Permittees must report instances of noncompliance not reported under WAC 173-303-810(14)(d), (e), and (f) (as specified in permit conditions I.E.8.a, I.E.10, and I.E.11.a) at the time of the next monitoring report or within six months of the date of noncompliance, whichever is sooner."

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	17. Regarding the transfer of permits, section I.G.1 states, “This Permit may be transferred to a new owner/operator only in accordance with the requirements of WAC 173-303-830(2), incorporated by reference, to identify the new Permittees and incorporate such other requirements as may be necessary, except that the financial assurance requirements in WAC 173-303-830(2)(b) do not apply. A unit-specific portion may be transferred to a new operator as a Class 1 1 modification with prior approval of the Department’s director. [WAC 173-303-810(14)(c)]” While Ecology may believe that USDOE will always be the owner/operator of this permit and is exempt from financial requirements under IIF, WAC 173-303-830(2)(b) does not assume this and is not written as such as is this permit condition. This does not consider the possibility that there could be a new owner that is not federal. Will they be allowed the duration of this permit with no requirement for financial assurance? This permit condition is poorly written and does not meet the regulation. It offers no financial assurance that the operator will hold with this permit. Hanford Challenge Recommends that Ecology rewrite the permit condition to make it enforceable under any circumstance for transfer of this permit.	Agreed. Permit condition I.C.2, "Transfer of Permit" includes permit condition language in I.C.2.d that states, "In accordance with WAC 173-303-830(2), the Permittees must maintain financial assurance conforming to the requirements of WAC 173-303-620, as applicable until Ecology notifies the Permittees that the new owner or operator has demonstrated compliance with the financial requirements."
Meredith Crafton	Parts I & II	18. The permit states, “Except as required pursuant to Permit Condition II.E, all written reports, notifications or other submissions, which are required by this Permit to be sent, or given to the Director of Ecology, should be sent certified mail, overnight express mail, or hand delivered…” This is a requirement so word is “must” not “should”. Hanford Challenge Recommends that Ecology change “should” to “must.”	Agreed. "Must" was added to Permit Condition I.G.2 (formerly I.I in the Rev. 9 permit).

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	19. Standard Permit Conditions state that “all applications, reports, or information submitted to Ecology that require certification (refer to Permit Attachment 6) will be signed and certified in accordance with the requirements of WAC 173-303-810(12) and (13), incorporated by reference. Why is there an Attachment 6 for certification, and how is it enforceable? What is the regulatory basis for Attachment 6? WAC 173-303-810(12) and (13) is the clear signatory authority on certification of all applications, reports, or information submitted to Ecology. Why is Ecology writing a permit condition that is less stringent than the requirements? Why is an ambiguous Attachment 6 used or needed? Hanford Challenge Recommends that Ecology remove Attachment 6 from the permit and follow the regulations. Or provide the permit fact sheet justification that explains the deviation from the WAC for the use of Permit Attachment 6 and its incorporation into this permit.	Attachment 6 provides the notification requirements per each standard permit condition. A signature or certified document is not always required for all notifications by WAC 173-303-810. In Attachment 6, "Recordkeeping and Reports", it includes information on the type of submittal that is required in relation to the standard, Part I or II Permit Condition. For example, Class 1 Permit Modifications do not come certified to Ecology, however, they are provided to Ecology through a formal letter. The attachment does not provide the exceptions to the requirements, instead it outlines in detail the required form of communication or submittal from the Permittees to Ecology. The permit condition has been updated to clarify notification requirements.
Meredith Crafton	Parts I & II	20. Section II.B and II.B.1 declares, “Permittees will design, construct, maintain, and operate the Facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of dangerous waste or dangerous waste constituents to air, soil, or surface or groundwater water which could threaten the public health or the environment through the preparedness and prevention measures given in WAC 173-303-340. (WAC 173-303-340).” WAC 173-303-340 does not say this. The last sentence says “This section describes preparations and preventive measures which help avoid or mitigate such situations.” Why is there a deviation in the text when WAC 173-303-340 is cited? Hanford Challenge Recommends that Ecology provide the correct WAC text to the permit condition for better enforceability.	Agreed. II.B, "Preparedness and Prevention" permit conditions have been re-written and were updated in the Hanford Site-wide Permit, Rev. 8c through a Class 3 permit modification. The Hanford Site-wide Permit, Rev. 9A renewal reflects those updates and the permit condition language is closer to the regulations in WAC 173-303.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	21. Section II.B2 states, “the Permittees will equip the Facility with the equipment specified in Permit Attachment 4, Hanford Emergency Management Plan (DOE/RL-94-02), and the corresponding unit-specific preparedness and prevention provisions in Parts III, V, and VI. The permittees will test and maintain this equipment as necessary to assure proper operation in the event of emergency. (WAC 173-303-340(1)) This permit condition is unclear as written and appears to talk about two different things. The condition is poorly written to provide direction on whether the permittee will provide the required equipment specified in Attachment 4 or somewhere in the unit specific part. Hanford Challenge Recommends that Ecology rewrite the permit condition to clearly say what the requirements for equipment are with the permittee.	Agreed. II.B, "Preparedness and Prevention" permit conditions have been re-written and were updated in the Hanford Site-wide Permit, Rev. 8c through a Class 3 permit modification. The Hanford Site-wide Permit, Rev. 9A renewal reflects those updates and the permit condition language is closer to the regulations in WAC 173-303.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	Section II.C.2 Personnel Training, states “Documentation of information required by WAC 173-303-330(2)(a), (b), and (c), incorporated by reference, and other personnel training record requirements in Permit Condition II.C.5 will collectively be the written training plan. The Permittees will place this documentation into the Hanford Facility Operating Record. WAC 173-303-330(2)” Again, this is less stringent than WAC 173-303-330(2), which specifically requires that the owner or operator must develop a written training plan which must include specific records and documents. The training plan must be part of the permit to be enforceable. It cannot be incorporated by reference. II.C 1 references Attachment 5 and other permit sections as part of the training plan. II.C.2 does not. A training plan or training information must be part of the Part B permit application and meet WAC 173-303-330. The permit conditions as written are not complete or completely enforceable. Hanford Challenge Recommends that Ecology: Review all permit conditions in II.C Personnel Training with the WAC 173-303-330 and revise accordingly. Or provide the permit fact sheet and Part B application material explaining Ecology’s justification for being less stringent than the regulation for personnel training for the Hanford facility.	Ecology agrees. The “Training Program" defines all of the training requirements that are in the Permit and the “Training Plan" defines all the training requirements that are in the operating record maintained by the Permittee. The training requirements of WAC 173-303-330 are met through the Training Program, Training Plan, and Permit Attachment 5, Personnel Training. Permit Condition II.C.2 refers to the written training program as incorporated by reference. The Training Program cannot be incorporated by reference and must be included in the permit. The individual addenda for Rev 9A have all completed extensive work to include a robust Training Program as part of the Permit in order to be in compliance with WAC 173-303-330 Dangerous Waste Regulations. Permit Condition II.C.1 and II.C.2 were updated to remove any unenforceable language regarding incorporating any training requirements by reference. The Training Programs have been updated to reflect the Training Plans so any time there is a change in the Training Plan, it will trigger a permit modification in the Dangerous Waste Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	Section II.C.3, states, “Changes to Permit Attachment 5, Hanford Facility Personnel Training Program and the training requirements identified in Parts III, V, and VI, must be made according to Permit Condition I.C.3 for those elements required by WAC 173-303-330(2)(b).” Why does Ecology only require WAC 173-303-330(2)(b) for permit modification and no other areas of WAC 173-303-330? How can Ecology be certain other permit modifications will not be required? Hanford Challenge Recommends that Ecology: Explain Ecology’s permit fact sheet basis for this permit condition and provide the explanation. Revise the permit condition to meet the regulations to provide enforceability in the permit.	Ecology agrees. In WAC 173-303-830 Appendix I, as a general facility standard, any time there is a change to the Training Plan that affects the type or decreases the amount of training given to employees, it is a Class 2 Permit Modification. WAC 173-303-330(2)(b) specifically addresses the written description of the type and amount of both introductory and continuing training required for each position. Any other changes in the Training Plan would be considered a Class 1 permit modification affording to the regulations. The standard permit conditions have been modified to provide enforceability in the permit and meet the regulations.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	Section II.D Waste Analysis General comment for conditions II.D.2.a, through II.D.3.d are conditions that are for requirements in permit Waste Analysis Permit conditions (WAPs) and Site Analysis Permit conditions (SAPs) which Ecology would be required to review and approve before requirements of these permit conditions. WAPs and SAPs are required parts of the Part B permit applications, not requirements after the permit is issued. Why aren't these the requirements of the review process of a permit application? How does Ecology write a permit WAP or SAP, justify it as complete and then require these permit conditions? If Ecology requires permit WAPs and SAPs after the permit is issued, then Ecology is not following the WAC regulations. Hanford Challenge Recommends that Ecology: Provide the permit fact sheet and Part B application material that Ecology used to justify these waste analyses permit conditions. Explain why Ecology would issue a permit first and verify a complete required WAP or SAP after issuance. Delete these permit conditions because they appear to have no purpose as permit conditions.	We agree. Ecology developed Waste Analysis Plan guidance that requires development of Sampling and Analysis Plans. Permit Condition II.D reinforces WAP requirements. Since 2012, we have worked with the Permittees to ensure deficient WAP permit information is submitted to Ecology to prepare for the revised renewal under revision 9A.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	Section II.H Financial Assurance states, “the provisions of WAC 173-303-620 are not applicable to USDOE as the owner and operator of the Hanford Facility. The obligations under WAC 173-303-620(1)(c), (3) and (5), to provide cost estimates for facility closure and post closure monitoring and maintenance will be deemed satisfied upon USDOE’s compliance with the HFFACO requirement (as currently contained in the M-36 Milestone series) to produce an annual scope, schedule, and cost report. (WAC 173-303-620)” This permit condition is first saying that WAC 173-303-620 does not apply to USDOE but then says WAC 173-303-620 does apply to USDOE and HFFACO satisfies WAC173-303-620. How does Ecology enforce this condition? This condition is a poorly written. Hanford Challenge Recommends that Ecology: Review WAC 173-303-620 and decide if it applies or does not apply and write a clear enforceable permit condition. Otherwise provide the permit fact sheet justification for this condition.	A more concise phrasing of the condition could be “WAC 173-303-620(1)(c) says states and the federal government are exempt from the provisions of WAC 173-303-620." The second part of the condition "are not applicable to USDOE as the owner and operator of the Hanford Facility. The obligations under WAC 173-303-620(1)(c), (3) and (5), to provide cost estimates for facility closure and post closure monitoring and maintenance will be deemed satisfied upon USDOE’s compliance with the HFFACO requirement (as currently contained in the M-36 Milestone series) to produce an annual scope, schedule, and cost report. (WAC 173-303-620)” appears to be over-reaching when it uses the term "deemed satisfied" because a requirement from which the federal government is exempt does not have to be "deemed satisfied."

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	Section II.1.1 Recordkeeping states, the "Permittees will comply with the applicable requirements of WAC 173-303-380(1)(d), (e), (f), (h), and -380(3), incorporated by reference, in addition to unit-specific recordkeeping and reporting requirements specified in Parts III, V, and VI pursuant to WAC 173-303-380." This permit condition is incomplete in the requirements a facility must keep and have in the written operating record. WAC 173-303-380 (1) requires (a) through (q) not just (d), (e), (f), and (h) as well as -380(2). Why is permit Section IV, corrective action, not included in this permit condition and have no requirements for record keeping? Again, this permit condition is less stringent than the regulation for -380 requirements. Hanford Challenge Recommends that Ecology rewrite the permit condition to be consistent and enforceable with the WAC requirements. If not, provide permit fact sheet justification that authorizes Ecology to be less stringent than WAC 173-303-380 and not require record keeping for corrective action permit units.	We agree. Ecology rewrote the permit condition to incorporate by reference WAC 173-303-380(1) in it's entirety. In addition, we added in reference to recordkeeping and reporting requirements for Corrective Action unit groups as well.
Meredith Crafton	Parts I & II	In general, Performance Standards are not sufficiently included in the permit as required by WAC 173-303-283. Hanford Challenge Recommends that Ecology revise Part II conditions and unit-specific permit condition(s) to include the following: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). However, use of Methods A and C to meet cleanup standards is in violation of previous commitments by DOE to unrestricted residential use along the River Corridor. Additionally the Hanford site does not meet the criteria for application of Method A; it has too complex waste streams to qualify.	Agreed regarding the inclusion of performance standards in the Part I permit conditions. They are now included in I.J. For the second comment regarding permit conditions, Ecology developed Closure Plan guidance that requires the Permittees meet closure requirements under WAC 173-303-610. Ecology and USDOE agreed in working through the Closure Plan requirements as follows: The main objective for closure of each DWMU [e.g., clean closure by removal or decontamination, landfill closure, closure using alternative requirements in WAC 173-303-610(1)(e) if eligible] will be included in the closure plan. The closure plan will also include a high-level description of how each DWMU will be closed in accordance with the WAC 173-303-610(2) closure performance standard, including a description of all planned activities (e.g., waste removal, removal and/or decontamination of structures and equipment, and removal and/or decontamination of any contaminated soil or other contamination resulting from the DWMU).

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	Parts I & II	The Permit and Units lack conditions identifying required clean closure of or excavation of near-surface soil and remove any associated pipelines or structures (ancillary equipment) per WAC 173-303-283 performance standard requirements. Hanford Challenge Recommends that Ecology: · Revise Part II Conditions to comply with WAC 173-303-283. · Utilize the Closure Plans submitted in the. Ecology should utilize closure plans in Part B applications (2004) and write appropriate Closure Permit conditions to rectify any non-compliance with unit specific closure requirements under WAC 173-303. · Include these Closure Plans and/or Permit Conditions within the Permit(s) to ensure compliance with WAC 173-303-610. · Ensure closure plans are consistent with unit-specific Dangerous Waste Regulations (e.g., WAC 173-303-650 Surface Impoundment regulations) as well as the rest of WAC 173-303.	Agreed regarding the inclusion of performance standards in the Part I permit conditions. They are now included in I.J. Regarding permit conditions, Ecology developed Closure Plan guidance that requires the Permittees meet closure requirements under WAC 173-303-610. Ecology and USDOE agreed in working through the Closure Plan requirements as follows: The main objective for closure of each DWMU [e.g., clean closure by removal or decontamination, landfill closure, closure using alternative requirements in WAC 173-303-610(1)(e) if eligible] will be included in the closure plan. The closure plan will also include a high-level description of how each DWMU will be closed in accordance with the WAC 173-303-610(2) closure performance standard, including a description of all planned activities (e.g., waste removal, removal and/or decontamination of structures and equipment, and removal and/or decontamination of any contaminated soil or other contamination resulting from the DWMU). Permit Conditions II.J provides requirements for the Permittees to comply with the closure and post-closure requirements under WAC 173-303-610. The Closure CAP guidance includes requirements for the Permittees who manage surface impoundments on the Hanford Site.
Meredith Crafton	General	All Addenda identified as “reserved” must include the WAC 173-303 required information in order to be in compliance with the regulations and be included in their respective unit permit (e.g., Sampling and Analysis Plans).	Within the Site-wide Permit, some of the unit groups do not require all the addenda for a complete application that complies with WAC 173-303 requirements. For example, the intact containment and secondary containment of hazardous waste at the Waste Treatment and Immobilization Plant Unit Group 10 prevent hazardous waste from interacting with groundwater so a Groundwater Monitoring Plan is not required for this unit. For the Hanford Site-wide Permit, Rev. 9A, Ecology reviewed all the unit groups to ensure each one had a complete set of addenda and permit conditions.
Meredith Crafton	General	All Addenda included in the permit should include the unit specific information not merely reference a document (e.g., Training Plans are located in the unit-specific file rather than the permit, possibly confusing to the permittee. This is definitely confusing to the public).	In reviewing the unit groups to prepare for the revised renewal, Ecology reviewed each portion of a Part A and B permit application to ensure an equivalent, enforceable, consistent, and implementable draft permit renewal was prepared. Each unit group was reviewed to determine if a Training Plan is required. For a complete list of unit groups and addenda, see the Hanford Site-wide Permit, Rev. 9A Fact Sheet.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Modified/Partial closure of an individual unit is not authorized under WAC 173-303 regulations and is included as an option in permit closure (see 1325-N).	Some units may contain wording referring to partial closure. For example, there are Single-Shell Tanks that are considered partially closed, because the waste has been retrieved and it has been removed from the SST system. This puts them in a safe configuration until full closure can be completed.
Meredith Crafton	General	All unit-specific groundwater monitoring plans should be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies. This is not a required condition in most permits.	All unit-specific Addenda D, "Groundwater Monitoring Plans," are consistent with the Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies as well as WAC 173-303-645 requirements.
Meredith Crafton	General	Permit unit specific Contaminant of Concern lists do not encompass the full range of contaminants. Ecology should include in each unit-specific Permit the full list of COCs as noted or identified in unit- associated draft RI/FS documents previously submitted to Ecology (e.g., DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7).	Addenda D, "Groundwater Monitoring Plans," contains the approved groundwater monitoring plans for all regulated units in the permit in the unit-specific chapters. All dangerous waste constituents, their concentration limits, points of compliance, and general groundwater monitoring requirements are contained as permit conditions or in the groundwater monitoring plans. In the standard permit conditions, there are requirements for groundwater monitoring in II.F.
Meredith Crafton	Parts I & II	Permit conditions do not require use of a methods-based approach in the unit-specific Sampling and Analysis Plans. Nor is use of non-filtered sampling in the Sampling and Analysis Plans required. Ecology should require these per the WAC 173-303 regulations.	We agree. Ecology developed Waste Analysis Plan guidance that requires development of SAPs. Permit conditions II.D reinforce the requirements within the WAP guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.
Meredith Crafton	Parts I & II	Permit conditions do not require repairs and replacement of wells per WAC 173-160.	Permit Condition II.F.5, "Well Inspection and Maintenance" includes requirements for the evaluation and replacement of wells. Additionally, Attachment 8 of the Hanford Site-wide Permit, Rev. 9A includes requirements for the Inspection and Training for Groundwater Monitoring Wells.
Meredith Crafton	Parts I & II	Permit conditions do not require coordination and incorporation of RCRA inspection requirements for the unit-specific permits with those for the associated CERCLA groundwater operable units. Inspection should at a minimum, be on a semi-annual basis.	Inspection requirements for Groundwater Monitoring on the Hanford Site is included in Attachment 8, "Inspection and Training Plan for Groundwater Monitoring Wells." The attachment is an extension of the standard Part I and II Conditions and applies to all unit groups in the Hanford Site-wide Permit, Rev. 9A.
Meredith Crafton	Parts I & II	Permit conditions do not ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b).	Within the Closure CAP Guidance, Ecology required that a schedule for closure of each dangerous waste management unit and final closure of the facility is included in the Unit Group Closure Plan.
Meredith Crafton	General	Permit does not identify list of other applicable laws or required permits nor are there conditions which reflect how compliance of these will be achieved.	Other applicable laws or required permits are included in Addendum A, "Part A Form" for each unit group.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Ecology should evaluate and confirm that all information on Part A forms is consistent with Washington State Dangerous Waste Permit Application; Part A Form and Instruction publication ECY 303-31 (6-2003) requirements as well as information presented in the SEPA checklists submitted with the Part B Permit application, the unit(s) specific draft Permit Conditions, and the draft factsheet(s) (e.g., the LLBG Part A form & the permit indicates in-trench treatment or placement of liquids within landfill. This is not allowed by the Landfill regulations).	Ecology worked with USDOE from 2013 to 2026 to update all Addenda A, "Part A Forms," and ensure consistency with Washington State Dangerous Waste Regulations WAC 173-303 and 95-402, Ecology's Guidance on Dangerous Waste Permitting. Additionally, Ecology ensured all supplemental information was submitted for all portions of the Part B permit for each unit group and included appropriate unit-specific permit conditions. Finally, Ecology updated fact sheets to reflect the changes in the revised permit renewal.
Meredith Crafton	LERF/ETF	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facilities Comments and Recommendations: 1. Identify in the Permit conditions the criteria for receiving new waste streams at ETF and whether or not the process includes a public participation process. 2. Include a Permit condition to require hazard identification and hazard mitigation in the Permit. 3. Include a Permit condition requiring the waste acceptance criteria to include identification of abnormal feed streams. 4. Take into consideration the uncertainty of characterization and volumes of waste streams primarily coming from WTP and going to ETF, ensure a robust and conservative waste acceptance criterion for ETF, and ensure that these criteria are reflected in the Permit conditions.	Ecology agrees with all four points of this comment made by Hanford Challenge. We feel that these points are already addressed in the Rev. 9 permit as follows: 1) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan. The requirements for accepting waste at ETF are explained in the WAP, Section B.4. The LERF and 200 Area ETF can treat wastes with waste numbers identified in Addendum A, and in the 200 Area ETF Delisting Petition, 40 CFR 231 Appendix IX Table 2. Prior to management of any new waste stream, it may be necessary to modify the WAP through the permit modification process. These modifications would be class 2 Permit Modifications, which include a public comment period (173-303-830 Appendix I, B.1.d.) 2) Hazard identification and mitigation at LERF/ETF are addressed in Addendum J and Permit Condition II.A. Unit specific Permit Condition III.3.G references Addendum J, Contingency Plan, and Permit Condition II.A. Addendum J includes hazards specific to the LERF/ETF. Permit Condition II.A requires the permittee to follow Permit Attachment 4: Hanford Emergency Management Plan (DOE/RL-94-02). 3) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan (WAP). Section B.4 of the WAP describes the Influent Waste Acceptance Process. This process determines the acceptability of a particular aqueous waste at the LERF or 200 Area ETF prior to acceptance of the waste for treatment or storage. 4) Permit Condition III.3.B.1 references Addendum B, Waste Analysis Plan (WAP). Section B.4 of the WAP describes the Influent Waste Acceptance Process. This process determines the acceptability of a particular aqueous waste at the LERF or 200 Area ETF prior to acceptance of the waste for treatment or storage.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	242-A	242-A Evaporator Comments and Recommendations: 1. Include a Permit condition to ensure the 242-A Evaporator has necessary upgrades, including replacing equipment, to safely operate the additional campaigns to process WTP waste streams. 2. Include a Permit condition to address accumulation of organics in the facility's tanks. 3. Identify requirements for limiting volatile organics within the waste acceptance criteria condition. 4. Ensure Permit conditions address the dangers of ammonia, including flammability and corrosivity.	Condition III.4.B.4 requires the 242-A Evaporator to be run for the protection of human health and the environment and any replacement equipment needs to meet the requirements outlined in Addendum C, "Process Information". Management of organics is sufficiently covered in Addenda B and C. Section B.10.1.4 addresses concerns about ammonia.
Meredith Crafton	325 HWT	325 Hazardous Waste Treatment Units Comments and Recommendations: 1. Include a Permit condition to ensure the 325 Facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks). 2. Include a Permit conditions to ensure the 325 Hazardous Waste Treatment Units identification of all waste codes for all waste processed in the facility.	1. Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied on a schedule that prevents hazards to human health and the environment. 2. Addendum B (WAP) requires identification of all waste codes for waste processed in the facility. The certified Part A Form submitted by the Permittee contains waste codes for all wastes processed in the dangerous waste management units in the 325 HWTU.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	CWC	Central Waste Complex Comments and Recommendations: 1. Modify the Permit condition (III.6.0.4.b) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes. 2. Include necessary Permit conditions to bring the Central Waste Complex into compliance (e.g., RCRA requires dams, berms, and containment be present that equal the content of the drums) 3. Revise/include Permit conditions requiring all waste stored at the CWC to be cataloged and properly labeled. 4. Revise/include Permit conditions requiring all wastes properly characterized to ensure that explosive or flammable chemicals are properly stored. 5. Include a Permit condition requiring all wastes to be tested, characterized and properly designated and removed for treatment on an accelerated schedule which is incorporated into the Permit's compliance schedule. 6. Include a Permit condition requiring all waste stored outdoors to be removed from the facility and properly stored or shipped offsite. 7. Include a Permit condition limiting acceptance of any new waste until proper characterization/designation/and needed treatment of the existing waste has been done.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WRAP	Waste Receiving and Processing Facility (WRAP) Comments and Recommendations: 1. Modify the WRAP Permit condition (III.7.0.4.b) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes. 2. Include a Permit condition requiring characterization of all waste streams processed in the WRAP facility. 3. Include/revise a Permit condition to include the function of the WRAP facility is to package TRU waste for shipment to WIPP, and that mixed waste can have TRU components and be identified as mixed TRU waste or MTW. 4. Include a Permit condition or revise the WAP to include a detailed list/document of the criteria and the methodology for determination of the presence of liquids in the wastes. 5. Include/revise a Permit condition to include criteria on how to obtain representative samples from a drum containing multiple containers of waste which lack identified/associated process information. 6. Include/revise a Permit condition for the following concerns or revise the Sections B.1.1.1; B.1.1.1.2 ; B.1.1.1.2.2 ; B.2.1.3.1 ; B.2.1.1.3.1; B.2.1.3.3; B.7.3 (of the WRAP Facility Waste Analysis Plan: a. Clarify the range of dangerous chemicals and the various methods of chemical screening. b. Clarify how people on the evaluations committee determine what to sample and which sample methods to use. c. Require the Permittee to clearly identify the range of dangerous chemicals and the various waste streams within the packages to be in compliance with the Dangerous Waste Regulations. d. Clearly identify who has the responsibility to designate the waste to certify that it meets LDR standards.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
		e. Clarify that the “10% rule” should only be applied to where it is absolutely known that the material inside the drums is exactly the same. f. Clarify the representativeness of the drum sampling from a package on the top of a drum and the packages located near the bottom of the drum. g. Include treatment of peroxides, oxidizers, sulfides, cyanides, and halogenated organic carbon in addition to grouting.	
Meredith Crafton	222-S	222-S (Laboratory) Dangerous & Mixed Waste Comments and Recommendations: 1. Include a Permit condition to ensure the 222-S identification of all waste codes for all waste processed in the facility. 2. Include a Permit condition to ensure 222-S facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks).	1. Addendum B (WAP) requires identification of all waste codes for waste processed in the facility. The certified Part A Form submitted by the Permittee contains waste codes for all wastes processed in the dangerous waste management units in the 222-S facility. 2. Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied that on a schedule that prevents hazards to human health and the environment.
Meredith Crafton	T-Plant	T-Plant Complex Comment and Recommendation: Modify the Permit condition (III.9.0.4.d) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WTP	Waste Treatment and Immobilization Plant Unit Comments and Recommendations: 1. Revise/include a Permit condition that defines the criteria and standards to be used to identify and evaluate chemical and radiological constituent hazards that could occur at the WTP facility. This could include writing a Permit condition requiring hazard analysis to be performed early in the process, rather than just prior to receipt of waste, to support necessary design change or mitigation. 2. Revise/include a Permit condition requiring response planning for criticality and natural and man-made phenomenon (e.g. Cascadia seismic events, dam failure, cyber attack disabling electrical systems) that addresses both the direct and indirect effects from major events. 3. Revise/include a Permit condition requiring contingency planning for suffocating CO2 release events from the cooling systems. Ecology should revise/include a Permit condition with specific actions to ensure that CO2 fire extinguishers are not used on or near high voltage equipment, or in areas that are or may become “confined spaces”. 4. Revise/include a Permit condition requiring contingency planning for response to the damages and difficulties associated with volcanic events (e.g., highly abrasive ash infiltration into operating spaces resulting secondarily in failure of exit safety equipment to perform). 5. Revise the Emergency Management Plan to reflect and ensure compliance with new WTP conditions as described in the above advice points for the WTP facility. Ecology should revise Permit conditions requiring compliance with Waste Acceptance Criteria and Section 1 Introduction and Addendum B1 to more accurately reflect the NRC’s provisional position on reclassification of ILAW waste as incidental to reprocessing. The NRC has yet to make a determination for Hanford. 6. Do not defer or delegate authority for RCRA actions to external processes and documents and to instead detail standards, requirements, methods and frequencies as permit conditions. Append all referenced versions of documents to the permit with active hyperlinks to the	WTP hazards are analyzed and described in the WTP Permit Chapter 6, Procedures to Prevent Hazards and Chapter 7, Building Emergency Plan. These two chapters identify chemical and radiological constituent hazards that could occur at the WTP facility. This could be encountered from facility operations. If hazards are found, a permit condition would be included in the permit requiring hazard analysis to be performed. As further hazards emerge, both of these plans will be updated to reflect current conditions. Permit condition III.10.C.2.n has been completed. The permit has been updated to reflect the completed status. The phased permitting approach implemented for WTP provided Ecology with the opportunity to review the sound engineering principles and capabilities incorporated into the WTP design before systems) that addresses both the direct and indirect effects from major events. These design deliverables included independent corrosion evaluations, engineering design and document assessment, Independent Qualified Registered Professional Engineer integrity assessments and Process Flow Diagrams in which Ecology is on review to ensure a complete and accurate permit. The permittees will demonstrate the technically functional elements of the facility through testing and integrity assessments. Permit Condition III.10.C.9.g requires the permittees to produce as-built drawings and maintain actions to ensure that CO2 fire extinguishers are not used on or near high voltage equipment, or in them in the operating record. Closure performance requirements are identified in WTP DWP Chapter 11, Closure Plan. Emission standards and criteria for ensuring protection of human health and the environment, and difficulties associated with volcanic events (e.g., highly abrasive ash infiltration into operating while operating the facility, is described throughout the WTP Permit.

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		referenced section(s). Some referenced documents appear to be missing from the permit. Examples: Addendum B-1. a. Waste Treatment Plant Quality Assurance Project Plan for the Waste Analysis Plan, Rev. 0.; b. 24590-WTP-RPT-MGT-04-001, Rev. 0,Regulatory Data Quality Objectives Optimization Report; and c. RPT-W375LV-EN00002, as amended, Approach to Immobilized Hanford Tank Waste Land Disposal Restrictions Compliance 7. Update Permit conditions III.10.C.2.n.i through .iv to reflect current dates/future dates. 8. Revise/include a Permit condition to ensure that Tank Wastes are immobilized in a durable waste form with performance at least equivalent to glass for the entire waste form, and to ensure proper characterization of tank wastes. The Board supports vitrification of wastes and opposes alternate waste forms unless their performances can be shown to be at least “as good as glass” (including secondary waste streams - see HAB Advice #258). 9. Revise/include a Permit condition to ensure the facility’s design is based on sound engineering principles and according to applicable regulations. Include a Permit condition to ensure all necessary testing or studies are performed well in advance of when data is needed for design and construction (see HAB Advice #258). 10. Revise/include a Permit condition to ensure WTP supporting facilities operate as intended throughout the operational life of the WTP facility while also performing their respective operations of support for other Hanford facilities (e.g. 242-A Evaporator). 11. Include/revise a Permit(s) condition(s) to require that all engineering drawings included in the permit be stamped by a registered professional engineer [WAC173-303-640]. 12. Include/revise a Permit(s) condition(s)to require the Permittee(DOE) to demonstrate that the plant design is technically functional, especially in	

Commenter	Unit Group	Comment	Comment Response
		the case of technical issues identified by the Defense Nuclear Facility Safety Board and/or by Ecology staff related to: a. Mixing (especially for non-Newtonian fluids) b. Particle settling (especially for criticality control, but also for heavy metals – lead, chromium, nickel …) c. Hydrogen gas generation and deflagration d. Erosion and corrosion. 13. Include/revise a Permit(s) condition(s) to ensure that plant systems and all facility vessel designs contain provisions to accomplish clean closure in accordance with WAC 173-303-610 & WAC 173-303-640. 14. Revise/include a Permit(s) condition(s) to ensure the emergency plans include an assessment of various modes of systems failures and their impacts on the emergency plans (e.g. common, cascade, sequential, parallel and other modes; age related failures through erosion, wear, corrosion, etc.). 15. Include/revise a Permit(s) condition(s) to require equivalent capabilities for each “train of equipment (e.g. Melter off-gas treatment system)” whenever/where ever multiple parallel trains exist in the facilities. 16. The Board advises Ecology to include a Permit(s) condition(s) to ensure that effluent pollutant levels in stack exhaust meet human health exposure criteria at the point of emission. 17. The Board advises Ecology to include a permit(s) condition(s) to ensure that effluent pollutant levels in stack exhaust (emission points) meet NESHAPs and RCRA emission criteria; and further require identification and remediation of instance where risks to human health exposure fall outside the protective standards intended by NESHAPs and RCRA emissions criteria.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	IDF	Integrated Disposal Facility Comments and Recommendations: 1. Modify the waste acceptance criteria condition or include a Permit condition which ensures IDF only accepts wastes that have been vitrified or whose entire packages have performance equivalent to vitrification. 2. Delete all references to bulk vitrification in the IDF Permit.	1. The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum B, Waste Analysis Plan, which contains Unit-Specific waste acceptance information and requirements. Addendum B includes a discussion of acceptance of wastes (vitrified and non-vitrified) at the IDF, which includes waste verification and confirmation of waste. 2. The Demonstration Bulk Vitrification System is no longer being pursued for use at the IDF. Ecology will delete references to DBVS in the IDF Permit. This comment was originally responded to in Ecology Publication no. 21-05-021.
Meredith Crafton	DST	Double Shell Tank System and 204-AR Comments and Recommendations: 1. Revise/include a Permit condition for sampling the DSTs to ensure tank wastes maintain their waste acceptance criteria chemistry. 2. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment). 3. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645. 4. Ecology should use its authority under the Resource Conservation Recovery Act (RCRA) to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high-level nuclear waste stored in Hanford's underground radioactive waste tanks.	1. Maintenance of waste chemistry during storage in DSTs is governed by Addendum C, Process Information. 2. Response to a leak in DSTs is governed by permit conditions III.12.K.8 and the contingency plan Addendum J. 3. Closure of DSTs is governed by Addendum H, Closure Plan, which follows WAC 173-303-645. 4. Permit reflect agreements with permittees regarding improvements in chemical vapor controls (i.e., NUCON).

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WESF	Waste Encapsulating Storage Facility (WESF) Comments and Recommendations: 1. Bring WESF into RCRA compliance by moving the capsules into dry cask storage and close the facility. 2. Include a Permit condition bounding the acceptance of additional waste at WESF, due to the fact that WESF is currently at capacity and cannot handle additional waste volume.	Comment responded to in Ecology Publication no. 20-05-022 (Comments #748 and #749): 1. The Permittees have been authorized to construct a new Operating Unit Group, Capsule Interim Storage, which will be used for dry storage of the capsules. Once capsules have been transferred initial closure activities can begin at the WESF. 2. Addendum B, Waste Acceptance Plan, does not provide any authorized mechanism for receiving new waste at the WESF. Permit conditions allow for the storage of the specific wastes identified in Addendum C and do not authorize receipt or storage of any new wastes, even if they would be compatible with the capsules.
Meredith Crafton	400A	400 Area Waste Management Unit Comments and Recommendations: 1. Draft a Permit condition preventing acceptance of offsite waste at the 400 Area using its authority under WAC 173-303-815(2). 2. Draft a Permit condition preventing acceptance of incompatible waste by their waste acceptance criteria. 3. Draft a Permit condition with dates for the removal of all sodium-bearing materials and subsequent clean closure. 4. Review and revise the Part A form to limit storage capacity to the currently stored volumes of sodium-bearing mixed waste currently stored in the facility.	1. There is no need to draft a permit condition preventing acceptance of offsite waste at the Fuel Storage Facility (FSF) of the 400 Area WMU because it is a one-of-a-kind facility that was specifically designed to store core component pots (CCP) and only the CCPs, and all CCPs in existence are currently stored at the FSF. Additionally, in Revision 9A, the 400 Area WMUs are a closing unit group and unable to accept any new waste. The ISA was clean closed in 2025 and no longer classified as a dangerous waste management unit. 2. In Revision 9A, the 400 Area WMUs are a closing unit group and unable to accept any new waste. 3. Tri-Party Agreement milestone M-092-09 establishes milestones and/or target dates if needed for acquisition of new facilities, modifications of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium. Ecology will follow the Tri-Party Agreement milestones. 4. There is no need to revise the Part A to limit the storage capacity at the Fuel Storage Facility (FSF) because the FSF is a one-of-a-kind facility that was specifically designed to store core component pots (CCP) and only the CCPs, and all CCPs in existence are currently stored at the FSF. The ISA was clean closed in 2025 and no longer classified as a dangerous waste management unit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	LLBG Green Islands	Low-Level Burial Grounds, Used Trenches, "Green Islands" Closure Unit Group 26 (CUG-26) Comments and Recommendations: Hanford Challenge recognizes that because much of the waste disposal into Hanford's burial grounds occurred prior to the passage of RCRA (as well as prior to the delegation of RCRA authority to the State of Washington), Ecology's authority over these burial grounds is somewhat limited. The Hanford Advisory Board has advised Ecology to seek direct delegation of authority from EPA for state application of RCRA for the period of 1976 to 1987. While we are supportive of that request, we are even more concerned that sufficient characterization and investigation occurs throughout the entire burial grounds to fully understand where the mobile and long-lived contaminants reside, so that informed decisions can be made about the level of risk posed by these wastes. Acceptable methods to mitigate that risk can then be determined. Hanford Challenge recommends that Ecology work with EPA to ensure that is the case.	The draft permit addressed your concern "that sufficient characterization and investigation occurs throughout the entire burial grounds to fully understand where the mobile and long-lived contaminants reside." Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Meredith Crafton	LLBG Trenches 31/34/94	Low-Level Burial Grounds Trenches 31 & 34 Comments and Recommendations: 1. Revise the Part A form to include all trenches as subject to Dangerous Waste Regulations until such time that characterization (including actively digging up waste to be able to conduct sampling) demonstrates it is not RCRA waste. 2. Include permit conditions for the management of retrievably stored waste. 4. Revise/delete text in the Permit conditions supporting 'in-trench treatment or placement of liquids within landfill'. 5. Revise/delete text in Permit conditions supporting placement of [storing] containers in a landfill. 6. Include a Permit condition requiring a new Container Storage facility for LLBG wastes subject to WAC 1783-303-630 regulations.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	LLBG Trenches 31/34/94	Low-Level Burial Grounds Trenches 94 Comments and Recommendations: 3. Revise the Inspection requirements to ensure that the Permittee can demonstrate its ability to maintain oversight of the trenches. 4. Revise/include a Permit condition to ensure that lead and mercury are included in the analyte list of Contaminants of Concern for the groundwater monitoring plan.	3. The inspection addendum for Rev 9A was revised and includes requirements for all oversight and maintenance. 4. Trench 94 is exempted from having a Groundwater Monitoring Plan. Therefore, no sampling of groundwater will take place. For the 1301-N Unit Group, the following is from the Response to Comments document: No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition, Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Meredith Crafton	324 Bldg	324 Building Comments and Recommendations 1. Due to the B-Cell leak which requires extensive cleanup, this unit should be included in the Permit at least as a Part IV Corrective Action Unit. Use Omnibus Authority WAC 173-303-815(2). New information is a basis. · According to DOE, the 324 facility will be reopened to remediate the spill under B-cell, and as part of the oversight for operating this facility, which presumably will generate hazardous waste as well as radioactive waste, it should be included in the RCRA permit. Attached below is the list of COCs for the B-cell sampling and analysis plan. In addition to the radionuclides, it contains the metals barium, cadmium, chromium and lead, as well as pH. Ecology's main objection may be that the 324 building waste site contains only radionuclides, thus it need not be included in the RCRA. However, the list of COCs says otherwise.	The Tri-Party agencies (Ecology, USDOE and USEPA) started public comment December 10, 2012 on a change to the Tri-Party Agreement milestone series M-89. The proposed milestone change would add the 324 Building to the Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	CA-1	CA-1 Waste Management and CA-2 Groundwater Operable Unit Comments and Recommendations: 1. It is inappropriate of Ecology to apply II.Y corrective action conditions to Closure and/or Post Closure Units in lieu of meeting the groundwater protection requirements of WAC 173-303-610. 2. It is inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645 corrective action permit requirements.	The II.Y permit conditions includes the groundwater units and reflects the2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050). The II.Y Permit Conditions will be retained. In order to meet the state's regulatory requirements for corrective action (WAC 173-303-64620), the cleanup action that is under CERCLA authority must meet all applicable, relevant and appropriate requirements (ARARs) stated in the CERCLA Record of Decision. These requirements include that the final action cleanup must not exceed the State's total risk of 1 x 10-5 and hazardous Index (HI) = 1 (WAC 173-340). If Ecology concludes that the ROD can't meet the requirements, then Ecology may impose corrective action requirements through the permit modification process (permit condition II.Y.2.a.iii). DOE may appeal the state's application of permit requirements in addition to the ROD requirements. For closure, the closure performance standard is established in the closure plan. These will typically also be the total risk of 1 x 10-5 and hazardous Index (HI) = 1 for clean closure. The state does have the option of establishing alternative requirements however, certain threshold criteria have to be met in order to use alternative requirements. Further, the alternative requirements must be established in an enforceable document. The state would not yield authority to either the EPA nor to DOE for closure using alternative requirements, given that the requirements would be established in an enforceable document.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Groundwater Operable Units Comments and Recommendations: 1. Include a Permit condition for the WTP requiring planning for a groundwater monitoring system to insure there is proper placement of monitoring wells with respect to plant locations more susceptible to leakage or that hold more risk according to materials handled. Ecology may want to designate specific monitoring well locations to ensure sufficient coverage within the WTP complex. 2. Include a Permit condition(s) that ensures full characterization of both the vertical and horizontal extent of groundwater contamination. 3. The Permit requires “that the Permittee supply a sufficient number of groundwater monitoring wells, and (to) add new wells as necessary to catch contaminants movement in the groundwater and identify compliance status,” the number of usable wells on the Central Plateau is rapidly decreasing due to the falling water table. · Include a Permit condition to require additional wells be located with respect to the thickest portions of the remaining wetted section of the aquifer that will also fulfill the monitoring requirement for each waste site. 4. The Permit states that “Wells that are no longer sampled due to water table decline (i.e., “dry groundwater monitoring wells”), and for which there is no future use, must be decommissioned.” Given the falling water table in the Central Plateau is making “wet” monitoring wells harder to find or sustain. · Ecology should include a Permit condition requiring evaluation of using now-dry groundwater monitoring wells for alternative sampling, using pore water geochemical sampling, radiological or geophysical methods in lieu of groundwater sampling. 5. Hanford Challenge is also concerned that water has collected in some “dry wells” in the tank farms and that they are not currently usable for gamma logging. · Hanford Challenge recommends that Ecology write a Permit condition to require pumping water or waste out of “dry wells” to allow their continued use.	1). The WTP does not require groundwater monitoring. It is not a regulated unit nor has it had any releases to the environment, it is still under construction. 2). The point of compliance does require full vertical extent of the aquifer. Should a release from the unit occur, the characterization activities conducted under the RCRA Facility Investigation the main purpose is to define the nature and extent of contamination, both in the soils and groundwater. This is not a part of groundwater monitoring. 3&4). Ecology uses the TPA milestone series M-24 to ensure that a sufficient number of monitoring wells be sited. A permit condition would be redundant to the requirement in the M-24 series. 5). Several conditions in the SST part of the permit address use of dry wells (e.g., Condition V.4.E.1.h.ii addresses "Dry Well Logging Data Requirements."). In addition, some of these old groundwater wells need to be replaced or maintenance needs to occur because they present a pathway for contaminants to travel to groundwater. WAC 173-160 requires these wells to be decommissioned. 6).CERCLA Section 121(e)(1) provides that no Federal, state, or local permit shall be required for the portion of any removal or remedial action conducted entirely on-site, where such remedial action is selected and carried out in compliance with Section 121. Therefore, Ecology may not include a Permit(s) condition(s) requiring submittal to Ecology of RCRA groundwater monitoring requirements from all CERCLA documents for incorporation into the units-specific Addenda housing the Groundwater Monitoring Plans. Ongoing soil and groundwater characterization is being conducted in the Tank Farms and other TSD units to fully understand the current conditions and the fate and transport of contaminants in the vadose zone. CERCLA remediation is ongoing to characterize non-TSD waste sites. Under CERCLA Section 121(e)(1) provides that no Federal, state, or local permit shall be required for the portion of any removal or remedial action conducted entirely on-site, where such remedial action is selected and carried out in compliance with Section 121.

Commenter	Unit Group	Comment	Comment Response
		· Ecology should write a Permit condition to require the routine annual (or more frequent) gamma logging of the dry wells to depths greater than 55 feet (past the first wetted zone in the soil, and to the full well depth in most cases), to improve early leak detection of Hanford tanks. Some dry wells would need to be extended to at least 60 feet for this purpose. 6. Ecology should take additional measures with respect to vadose zone contribution of contaminants to the groundwater – now and into the future. Hanford Challenge Recommends that Ecology: · Include Permit conditions providing for Ecology's oversight of vadose zone characterization and remediation activities as an important segment of the overall Hanford clean-up. · Include a Permit condition that would require characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the Tank Farms and other important mixed waste sites to fully understand the current conditions and the fate and transport of contaminants in the vadose zone and its potential impact to groundwater in the future. · Include a Permit condition that requires the use of a Risk Budget Tool to model the cumulative effects of multiple contaminants to groundwater. The condition should require submittal of the parameters that were used in the Risk Budget Tool and parameter selection should be subject to the Permit modification process.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	1301-N Liquid Waste Disposal Facility, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, 216-S-10 Pond and Ditch, 216-B-63 Trench, 216-B-3 Pond Comments and Recommendations: 1. Utilize the Closure Plans submitted in the Part B application and to write appropriate Closure Permit conditions to rectify any non-compliance with unit specific closure requirements under WAC 173-303. 2. Ensure the approved closure plan is consistent with unit-specific Dangerous Waste Regulations-WAC 173-303 (ex: Surface Impoundment regulations). 3. Include approved Closure Plans and/or Permit Conditions within the Permit(s) to ensure compliance with WAC 173-303-610 and unit specific closure requirements. Ecology should not presumptively approve plans that do not yet exist. There is a lack of requirements for submittal of closure plans in the new RCRA Permit(s). Reference to closure actions under non-existent CERCLA document violates DW closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). 5. All Addendums identified as “reserved” should include the WAC 173-303 required information in order to be in compliance with the regulations. 12. Ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b) 13. Review and revise Part V (closing) Permits to ensure compliance with Land Disposal Restrictions (LDRs). 14. Review and revise Part V (closing) Permits to ensure that non-existent Part II conditions are not cited (e.g.1301-N). 15. All RCRA TSDs closure performance standards must use MTCA Method B cleanup levels. 17. Include a Permit condition requiring submittal of all RD/RA work Plans to Ecology as subject to WAC 173-303-830/840 Permit modification process.	The revised permit renewal (Rev 9A) includes closure plans for the 216 Land Based Units. At a minimum, closure of the dangerous waste management units (DWMU) will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) *Closure Plan; Amendment of Plan*, which requires a written closure plan. After issuance of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, *Permit Changes*. For the 1301-N Unit Group, the following is from the Response to Comments document: No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition, Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	SST	Single Shell Tank Unit Comments and Recommendations: 1. Revise Permit condition V.4.B.3.f (e) [refers to releases to the soils and groundwater] to include identification of specific methodology to be used in determining how releases are identified as occurring and the process for compliance with WAC 173-303-640(4) requirements. 2. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment). 3. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645. 4. Revise Permit condition V.4.B.3.f (h) [refers to tank integrity assessment]to include identification of the process for selection of the methodology/criteria for determining tank integrity citing also WAC 173-303-640(2) regulations and identify the requirements necessary to be in compliance. 5. Revise Permit condition V.4.G.2.c.i [refers to closure Performance Standards] to include all specific criteria which must be met in order meet the required “Impracticability Demonstration.” 6. Revise the V.4.C Conditions [refers to SST Groundwater Monitoring] to reflect and cite WAC 173-303-645(11) [Corrective Action Program for release from regulated units] requirements. 7. Include a Permit condition requiring submittal of all TSAPs (Tank or Component Specific Sampling and Analysis Plans) subject to WAC 173-303-830/840 permit modification requirements. 8. Revise Permit condition V.4.B.3.g. (k) & (l) [refers to maps and descriptions of tanks/ancillary equipment/piping distribution] to include	1. Permit Condition V.4.B.3.f is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information. 2. The Rev 9A Permit includes Addendum J, Contingency Plan (Building Emergency Plan) and Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leak is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. 3. This is covered in Permit Conditions V.4.D and V.4.H.7 and the Addenda D, Groundwater Monitoring Plans and Addenda H, Closure Plans. 4. Permit Condition V.4.B.3.f(h) is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information. 5. Permit Condition V.4.G.2.c.i is now V.4.H.2.c.i. This Permit Condition has been rewritten to provide clearer requirements to provide a practicability demonstration. 6. Permit Condition V.4.C is now V.4.D. This Permit Condition section has been rewritten to provide clearer requirements for Corrective Action (see Permit Condition V.4.D.4). 7. Permit Condition V.4.H.7.c requires the permittees to submit TSAPs, but TSAPs are not part of the Rev 9A Permit. Ecology cannot regulate the modification process of the TSAPs using the Rev 9A Permit process. 8. Permit condition V.4.B.3.g. (k) & (l) has been removed. This information has been included in Addendum C, Process Information. 9. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan. 10. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. Part of the System Plan is to install a new DST to help with the retrieval and move waste to the Vitrification Plant. The Rev 9A Permit will be revised if needed to support a final System Plan. 11. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan. 12. Permit condition V.4.C.5 requires the characteristics of waste. This information has also been included in Addendum C, Process Information.

Commenter	Unit Group	Comment	Comment Response
		specific criteria which must be met in order to determine integrity status and retrieval status. [see previous comment regarding Tank Assessments] 9. The Milestone Schedule for closure of SST does not support WAC 173-303-610 or 173- 340-360(4) requirements. Ecology should negotiate a more realistic Closure Compliance Schedule with DOE. 10. Include/revise a Permit(s) condition(s) requiring the construction of new double shell tanks and emptying of the tanks known or suspected of leaking as expeditiously as possible. 11. Include/revise a Permit(s) condition(s) to require a priority basis when establishing plans for emptying tanks (i.e., the "Systems Plan") and the alternatives considered shall require that the tanks be emptied in RCRA priority (i.e., First priority - known leaking tanks, second priority - suspected leaking tanks, third priority - non-compliant single shell tanks, finally all remaining tank wastes). 12. Include/revise a Permit(s) condition(s) to ensure the Permittee (DOE) complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of SST sites contamination. 13. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit(s) condition(s) requiring characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the SST Tank Farms and other mixed waste sites. 14. Include/revise a Permit(s) condition(s) to ensure better validating leak detection methodology and capability and to establish the criteria for what constitutes acceptable leak detection capability. 15. Include/revise a Permit(s) condition(s) requiring the pumping of water or waste out of "dry wells" and requiring annual (or more frequent) gamma logging of the dry wells to depths >55 feet past the first wetted zone in the soil, and to the full well depth in most cases, to improve early tank waste leak detection.	13. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. Permit Condition V.4.H.2.c.i requires Risk Assessment documents to be revised before closure can be started for WMA C. 14. Permit Condition V.4.J.7 covers the requirements for tank leak detection monitoring. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection. 15. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging. 16. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging. 18. Revised Permit Conditions V.4.D include groundwater monitoring. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. 19. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan. 20. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan. 21. Permit Condition V.4.H.2, Closure Performance Standards, cover this requirement. Closure plans will be submitted for all SST farms and will be modified per permit conditions. 22. Permit Condition V.4.K and Addendum K, Post-Closure Plan, cover these requirements. 23. Ecology has worked closely with EPA Region 10 to ensure regulatory requirements are being met. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan.

Commenter	Unit Group	Comment	Comment Response
		16. Include/revise a Permit condition(s) requiring the Permittee (DOE) to extend dry wells that do not extend to at least 60 feet and to utilize these wells to perform gamma logging and detection or leaks or extension of contaminate plumes. 18. Include a Permit(s) condition(s) requiring all changes to groundwater monitoring to be incorporated into the RCRA Permit(s) per the WAC 173-303-830/840 process. 19. Revise/include a Permit(s) condition(s) to require annual submittal of a schedule for closure of tanks to meet Milestones M-045-70 & M-62-45 requirements. 20. Utilize Ecology's Omnibus authority under WAC 173-303-815 to include a Permit(s) condition(s) to require annual submittal of a budget report which identifies necessary increases in personnel, equipment, and costs to support compliance with Milestones M-045-70 & M-62-45 requirements. 21. Revise/include a Permit(s) condition(s) to ensure closure of the SST System and compliance with Performance Standards is subject to the WAC 173-303-830/840 process. 22. Revise/include a Permit(s) condition(s) to ensure there is a re-evaluation of the Post-Closure care period after 30 years with subsequent periodic reviews [decadal] throughout the post-closure period (WAC 173-303-610(7) and WAC 173-303-610(8)). The post closure period should be at least 10 half-lives of any isotope that is a COC (if it's plutonium that would be 240,000 years) or as long as there are potential health risks from any non-radioactive COCs. 23. Work closely with EPA Headquarters Region 10 RCRA staff to discuss what timeframes are acceptable for the State to allow for known or suspected leaking tanks to remain in that status pending development of treatment. The State should ensure they have written agreement with EPA about what is an acceptable time period to empty the known or suspected leaking tanks, and the non-compliant tanks.	24. USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C. 25. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements. 1 and 2. In the Permit Conditions the Ancillary equipment definition has been updated to reference information within Addendum A, Part A Form and Addendum H, Tier 1 Closure Plan, which will have more information on the type of ancillary equipment and how it will be closed.

Commenter	Unit Group	Comment	Comment Response
		24. Ecology should use its authority under the Resource Conservation Recovery Act (RCRA)1 to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high-level nuclear waste stored in Hanford's underground radioactive waste tanks. 25. Ecology should revise/include a Permit(s) condition(s) to ensure IQRPE certifications to comply with WAC 173-303-640(2) requirements and include certification of the SST leak integrity. Single-Shell Tank System Closure Unit Group 4 (CUG-4) Comments and Recommendations: 1. Ecology should make clear in the "definitions" in the Permit that piping and ancillary equipment that formed part of the tank systems (single-shell tanks, double-shell tanks, miscellaneous tanks, vaults, pits, valve boxes, etc…) are part of the tank system as regulated under RCRA and are part of the tank closure process under RCRA. 2. Ecology should add a Permit condition requiring removal of near-surface pipelines and noting that demonstration of technical impracticability will not be possible for pipelines.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	241-CX	241-CX Tank System Comments and Recommendations: 1. Ecology should not refer to closure actions in non-existent CERCLA documents [e.g. 200-IS-1OU]. Dangerous Wastes closure regulations require details in an approved Closure Plan. 2. Include Permit condition(s) citing use of MTCA Method B values to meet the Performance Standards requirements. 3. Revise the cleanup of associated ancillary facilities. Partial closure of facilities is not allowed under WAC -610 or -640	The permit application includes a closure plan. At a minimum, closure and post-closure care of the 241-CX tank system, including associated ancillary piping and equipment, will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). If closure plans are written based on CERCLA cleanup requirements, those requirements will be incorporated by reference in 241-CX tank system closure plans, and closure will be completed to the approved closure plans. Specific closure performance standards per the Dangerous Waste Regulations (WAC 173-303-610) will be included in the closure plan. WAC 173-303-610(2), Closure Performance Standards, also includes provisions for cleanup requirements for the Model Toxics Control Act (MTCA) Regulations, Chapter 173-340 WAC. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of the WAC 173-340 MTCA Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of an appropriate MCTA cleanup method will depend on the specific cleanup actions required for the 241-CX tank system. Any required permit changes will be completed through the permit modification process as described in WAC 173-303-830, Permit Changes.
Meredith Crafton	Hexone	Hexone Storage and Treatment Facility Comments and Recommendations: Revise the Permit to require RTD for the Hexone Storage Tanks and all associated ancillary equipment.	Ecology assumes the term “RTD” used in the comment means Remove, Treat, and Dispose. At a minimum, closure of the Hexone Storage and Treatment Facility will comply with the closure and post-closure requirements of WAC 173-303-610, for all dangerous waste facilities, and WAC 173-303-640, Tank Systems.
Meredith Crafton	NRDWL	Nonradioactive Dangerous Waste Landfill Comments and Recommendations: 1. WAC 173-303-650 requires details and a complete cover design to be in compliance with the Dangerous Waste regulations. 2. Include a Permit condition requiring submittal within 30days of permit issuance, of a complete cover/barrier design and attachment of this design into the RCRA Permit for NRDWL. 3. Write a Permit condition that requires DOE to identify the source of soils and materials to be used for the construction of a landfill cap.	Milestones have been developed to require submittal of the final cover design and associated documents. See the description of the milestones below: A Class 3 permit modification request will be submitted to Ecology per TPA Milestone M-016-210. The permit modification request will include the 90% final cover design, engineering report, maintenance and monitoring plan, and a proposed schedule of these closure activities for the NRDWL/SWL. A Class 3 permit modification request will be submitted to Ecology within 180 days after Ecology’s approval of the 90% cover design, per TPA Milestone M-016-211. The permit modification request will include an updated post-closure plan for NRDWL/SWL and an updated Groundwater Monitoring Plan.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	DST	Double-Shell Tank System & 204-AR Waste Unloading Station Operating Unit Group 12 (OUG-12) Comments and Recommendations: 1. The recent discovery of a leak in double-shell tank AY-102 raises a number of concerns that can at least be partially met by specific conditions in the RCRA Permit. Given the delays in getting the WTP operational, and the need for continued reliance on the soundness of the 28 double-shell tanks, the ten year frequency of inspection as spelled out in III.12.K.3.b seems completely inadequate. Hanford Challenge recommends that Ecology write Permit conditions that include a more frequent inspection schedule of the double-shell tanks. We do not believe that a ten year interval for each tank is sufficient. Hanford Challenge recommends this inspection be no less frequent than every year for each tank, and continuous monitoring for any tank showing significant issues. The on-going delays in the WTP, and now the possibility of leaking double-shell tank, call into question the adequacy of whether there is sufficient compliant tank space available at Hanford. We've known for some time that the limited available double-shell space would impact the ability to retrieve waste from single-shell tanks. We've been caught in the dilemma regarding new tanks for more than 20 years now, and the tanks are that much older. 2. Hanford Challenge recommends that Ecology include a Permit condition that requires that no later than December 31, 2022, either the WTP is fully operational, or else new double-shell tanks begin receiving waste. That date coincides with Consent Order requirements for the start of full WTP operations.	Components of the DST system components are inspected per the schedule in Addendum I with the purpose of early detection of potential structural concerns. Overall system structural integrity is assessed and certified per recommendations of previous IQRPE structural integrity assessment. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WTP	Waste Treatment & Immobilization Plant Operating Unit Group 10 (OUG-10) Comments and Recommendations: 1. Hanford Challenge and others are concerned that serious technical issues have yet to be resolved at the WTP, including mixing, particle setting, erosion/corrosion, and materials qualification. Hanford Challenge recommends that Ecology -- · Include Permit conditions which require DOE to demonstrate that the WTP design is technically functional and materials are appropriately nuclear safety qualified, especially in the case of technical issues identified by the Defense Nuclear Facility Safety Board and/or by Ecology staff related to: § Mixing (especially for non-Newtonian fluids), § Particle setting (especially for criticality control, but also for heavy metals – lead, chromium, nickel), § Hydrogen gas generation and deflagration, and § That all nuclear-related equipment be qualified and certified to operate in foreseeable, defined accident scenarios. · Include a Permit condition that requires that all engineering drawings included in the Permit be stamped by registered professional engineers as required under the professional standard for engineers. · Include a Permit condition to ensure that major control elements (valves, check valves, back pressure valves, over pressure reliefs, relief detection, valve controllers and positioners) are included on process flow diagrams as well as on other engineering drawings. Many of the process flow diagrams appear to be missing essential valves and components, including both physical and control elements. · Include Permit conditions ensuring header vent designs used in the facility prevent explosive or deflagrative events propagating through systems and leading to wide-scale system failures. 2. The Permit calls for the plant to be clean closed, however the vessel designs make no provisions to allow for this or to make it easy. Hanford Challenge recommends that Ecology include Permit conditions, wherever possible, to require that plant systems be designed to facilitate	WTP hazards are analyzed and described in the WTP Permit Chapter 6, Procedures to Prevent Hazards and Chapter 7, Building Emergency Plan. These two chapters identify chemical and radiological constituent hazards that could occur at the WTP facility. This could be encountered from facility operations. If hazards are found, a permit condition would be included in the permit requiring hazard analysis to be performed. As further hazards emerge, both of these plans will be updated to reflect current conditions. The phased permitting approach implemented for WTP provided Ecology with the opportunity to review engineering principles and capabilities incorporated into the WTP design that addresses both the direct and indirect effects from major events. These design deliverables included independent corrosion evaluations, engineering design and document assessment, Independent Qualified Registered Professional Engineer integrity assessments and Process Flow Diagrams in which Ecology is on review to ensure a complete and accurate permit. The permittees will demonstrate the technically functional elements of the facility through testing and integrity assessments. Closure performance requirements are identified in WTP DWP Chapter 11, Closure Plan. Emission standards and criteria for ensuring protection of human health and the environment, and difficulties associated with volcanic events (e.g., highly abrasive ash infiltration into operating while operating the facility), is described throughout the WTP Permit.

Commenter	Unit Group	Comment	Comment Response
		clean closure. 3. At Hanford and at the Idaho National laboratory, prior operations of the canyon facilities resulted in emission of oxides of nitrogen at levels above human health standards. Under some weather conditions (not easily represented in standard atmospheric dispersion models), these form long regularly undulating plumes that undergo little mixing or dispersion and slowly descend until they contact the ground surface 2 to 20 miles distant from the point of release. Hanford Challenge recommends that Ecology include Permit conditions on effluent pollutant levels from the stack exhaust that meet human health exposure criteria at the point of release. 4. By making the parallel equipment different, plant operations become more complex, training issues become large, the potential for mistakes and violations increase dramatically. Hanford Challenge recommends that Ecology include Permit conditions to require equivalent capabilities for each train of equipment whenever/wherever multiple parallel trains exist in a WTP facility. 5. Hanford Challenge recommends that Ecology include Permit conditions that require Independently Qualified Registered Professional Engineer evaluations for piping to include assessments of internal corrosion and erosion as well as external galvanic corrosion. 6. Hanford Challenge recommends that Ecology include a Permit condition requiring comprehensive galvanic, cathodic and other corrosion protection for buried piping, interplant connected systems, and in facilities to assure that vessels, hangers, wiring, wire trays and other components are protected from various forms of corrosion.	

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WTP	Waste Treatment & Immobilization Plant Operating Unit Group 10 (OUG-10) Addendum B1 Waste Treatment Plant Waste Analysis Plan Section I Introduction, Part III, Operating Unit Group 10-B1.1, Paragraph at line 31. The Permit should not assume that all conditions will be met (removing key radionuclide to the maximum degree practicable, meeting Class C waste limits and conditions, etc…) to allow reclassification of immobilized low-activity waste as incidental, which is needed for disposal to occur at Hanford. If the conditions are not met, then disposal at Hanford would not be allowed.	DOE's interpretation of the definition of High Level Waste is not within the scope of the Hanford Site-wide Permit Renewal.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WTP	Waste Treatment & Immobilization Plant Operating Unit Group 10 (OUG-10) Addendum F1 Emergency Response Plan Hanford Challenge recommends that Ecology not defer emergency plans and procedures to DOE planning documents. These need to undergo review and approval with public comment comparable to and in accordance with the RCRA permit. · Part III F1, Emergency Response - Section F1 - F5.4, F6.1.9 and F7.2.7 Criticality – This section inaccurately asserts that criticality events are not credible at the WTP. Based on plutonium particles and mixing issues, these are now known to be credible events. (Inaccurate assertions like "Analyses have shown that there is no credible criticality event that can be postulated to occur at the WTP (BNI 2001b)" need to be removed.) · The emergency plan should specifically detail expected actions/conditions following a Cascadia earthquake that results in wide-spread destruction across the region and which may disrupt power, fuel, roads, shipping and other resources for prolonged periods. · As evidenced by the 1980 eruption of Mt. St. Helens, the damages and difficulties associated with volcanic events go far beyond those identified in F6.2.2 Volcanic Eruption/Ash fall. Potential impacts include highly abrasive ash infiltration into operating spaces; equipment failures from polishing; and added entry controls to minimize ash entry resulting secondarily in failure of exit safety equipment to perform (exit doors being taped shut so securely as to be unusable in an emergency). · The emergency plans should include an assessment of various modes of failures and their impacts on the emergency plans (common, cascade, sequential, parallel and other modes; age related failures through erosion, wear, corrosion, etc…) · The Emergency Plan does not reference, postulate or plan for suffocating CO2 release events from the cooling systems. · Where CO2 is used or may be expected to migrate there should be requirements for continuous real-time monitors and alarms. · Section 9.2 should include specific actions to ensure that CO2 fire extinguishers are not used on or near high voltage equipment, nor in areas that are or may become "confined spaces."	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	PUREX	PUREX Closure Unit Group 25 (CUG-25) Comments and Recommendations: 1. The PUREX tunnels are detailed in Hanford reports as mixed-waste storage units. Hanford Challenge recommends that Ecology include Permit conditions that require the characterization and treatment of mixed-wastes in the tunnels and their proper treatment and disposal in licensed, lined, compliant disposal facilities. Hanford Challenge Recommends that Ecology: · Write Permit conditions that requires secondary containment and leak detection and monitoring. · Write Permit conditions for characterization of the unidentified materials in the tunnels and their volumes. · Remove, treat, and dispose the materials in the PUREX tunnels as appropriate. Ecology should reconsider the reliance on water transport and electrical systems over a long period of time to maintain protections such as water doors. · Clean close the PUREX Tunnels. · Expand the contaminant of concern list to include lead. 2. DOE used massive quantities of lead at Hanford for shielding. This lead poses a long term threat to the environment. Hanford Challenge recommends that Ecology: · Regulate lead used in shielding under RCRA. · Include Permit conditions for the treatment of this lead in accordance with land disposal requirements and restrictions.	In 1992, Congress passed the Federal Facility Compliance Act (FFCA). Among other things, it drives USDOE facilities like Hanford to address their backlogs of untreated mixed waste. The FFCA required USDOE to develop plans and schedules for developing “treatment capacities and technologies” to address mixed waste backlogs via a “site treatment plan.” So long as USDOE complies with an approved plan, it will not be subject to fines or penalties for storage prohibition violations. At Hanford, the Tri-Party Agreement (TPA) satisfies the site treatment plan requirement. The wastes currently stored in the PUREX Tunnels are stored in a safe and compliant manner according to both the requirements of the permit and the Department of Energy's own requirements for the safe management of radioactive waste. Due to the highly radioactive nature of the wastes, more harm to human health and the environment would potentially occur by characterizing the waste in more detail or placing secondary containment and leak detection. After the 2017 collapse of Tunnel 1, the waste that remained in both tunnels was grouted in place to prevent any possible exposure. The waste will remain grouted in place until final closure is determined. Similarly, lead will be managed according to the requirements of the LDR report. Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the FFCA and the TPA.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	LLBG Green Islands	Low-Level Burial Ground Closing Units (Green Islands): 2. Include a Permit condition requiring characterization of all areas within the 1997 Part A boundary lines. (HAB Advice# 226) The assumption should be that it is all mixed waste until it is proven otherwise.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Meredith Crafton	IDF	Integrated Disposal Facility Operating Unit Group 11 (OUG-11) Hanford Challenge recommends that all references to disposal of waste from the Demonstration Bulk Vitrification System into the Integrated Disposal Facility be deleted from the Permit.	The Demonstration Bulk Vitrification System is no longer being pursued for use at the IDF. Ecology deleted references to DBVS in the IDF Permit.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	WESF	Waste Encapsulating and Storage Facility (WESF) Operating Unit Group 14 (OUG-14) 1. Recent analyses suggests that the WESF storage pool concrete may have become embrittled due to long-term exposure from high gamma radiation. Hanford Challenge recommends that Ecology include specific and detailed Permit conditions requiring annual assessment of the soundness of this facility to continue on-going storage of the cesium and strontium capsules or to replace it with either a compliant facility or compliant dry cask storage. 2. As the radiation damage to concrete was not anticipated at WESF and not included in the design basis for the facility, it seems likely that this is a generic concern. Hanford Challenge recommends that Ecology include Permit conditions for evaluation of all other facilities with high radiation dose and/or high temperature that may impact concrete structural capability to evaluate the current condition of these facilities within two years, and to assess what jeopardy there may be to the facilities in the future (specifically including single shell tanks, double shell tanks, and the canister storage building).	Comment responded to in Ecology Publication no. 20-05-022 (Comment #497): WESF is managed as a Hazard Category 2 Nuclear Facility by DOE. As such, a rigorous safety evaluation of various accident scenarios, including structural integrity of the facility, is performed and approved by the DOE which allows the facility to operate safely. These safety evaluations are described in three documents as follows: HNF-8758, “Waste Encapsulation and Storage Facility Documented Safety Analysis” HNF-8759, “Waste Encapsulation and Storage Facility Technical Safety Requirements” HNF-11724, “CH2M Hill Plateau Remediation Company Safety Management Programs(SMPs)” These procedures in these documents require routine structural evaluations, including concrete degradation due to radiation. It has been determined and certified by a certified licensed engineer that the structural integrity of WESF is not compromised from the radiation exposure. In fact, WESF has been significantly over-designed in terms of concrete thickness needed to store the capsules. Based on the results of these studies, Ecology does not see a need to add permit conditions to address this concern or to evaluate other concrete structures where they may be a similar concern.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	Various Sites in the River Corridor (110 and 300 Areas) 1. Hanford Challenge recommends rewriting/updating several sections of material for units in the river corridor. Much of the draft text is obsolete – apparently copied from the old Permit – and has repeated presentations of 1990s-era monitoring data, reference to 2000 actions in future tense, citation of contractors and their documents that have been long-since replaced, and similar examples. At one level, we can understand inclusion of old plans for post-closure units since those were the plans describing post-closure activities (and might not have changed) and under which post-closure decisions continue to be made, although an explanation would be useful. However, inclusion in the plan of only old (pre-2000) monitoring data for post-closure units eliminates any chance for the data to provide insight of effectiveness of the implemented remedies. Data for these units should be updated or dropped. For closure units, lack of contemporary information (new wells, new monitoring data, newer models and simulation results) seriously compromises the information base upon which decisions are based. This shortcoming might be more perception than reality, since planning under CERCLA is presumably using all available data for these decision units, but the lack of contemporary information is not reassuring. River corridor closure units that include obsolete language and data in the plan include: · 1301-N - Addendum D (groundwater), Addendum H (Closure Activities) · 1324-N – Addendum D (groundwater · 1325-N - Addendum D (groundwater) · 183-H – Addendum D (groundwater), Addendum K (Corrective Action Plan) Hanford Challenge recommends that Ecology re-examine the sparse characterization and monitoring data, underlying assumptions and model outputs used in the old closure planning to identify contaminants of concern and to develop cleanup plans for these units, and to ensure that contemporary cleanup/monitoring plans (under CERCLA) reflect the best available information.	Response in Response to Comments document: Ecology agrees that parts of the permit are outdated. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. Response to Comments in the 1301-N and 1325-N comment period: Ecology agrees that parts of the permit are outdated. US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	General Closure Unit Comments and Recommendations: 1. Ecology should review and revise Part V (closing) Permits to ensure compliance with Land Disposal Restrictions (LDRs). 2. Review and revise Part V (closing) Permits to ensure that non-existent Part II conditions are not cited (e.g.1301-N).	Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Meredith Crafton	NRDWL	Nonradioactive Dangerous Waste Landfill Closure Unit Group 20 (CUG-20) Comments and Recommendations: Hanford Challenge recommends Ecology include a Permit condition requiring DOE to commit to extensive monitoring of the planned evapotranspiration (ET) barrier on the site (water content and water movement, root penetration into cap material, etc.) to evaluate actual performance of an ET cap to critically assess cap performance at NRDWL/SWL (or at a different waste site should it be the first to have an ET cap actually installed at Hanford).	Condition and Addenda text for the NRDWL and SWL (closure units) has been edited and revised to ensure compliance in accordance with closure requirements under WAC 173-303-610 and 665. In addition, the Groundwater Monitoring Plan for NRDWL has been revised to reflect current conditions and ongoing monitoring requirements.
Meredith Crafton	300A	300 Area Process Trenches Comments and Recommendations: It is inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645/646 corrective action permit requirements while the remedy selected remains an unproven technology. Hanford Challenge Recommends that Ecology include a Permit condition to ensure that natural attenuation is not “determined” by the Director of Ecology as meeting the corrective action Permit requirements of WAC 173-303-646.	1. A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) has been completed for evaluation and proposed remedy for groundwater in the 300 Area. This CERCLA process is being implemented by EPA for the remediation of soil and groundwater. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts and waste time and money, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA requirements but always reserves the option to require additional work if we are not satisfied with the results or the progress under the CERCLA action. 2. Ecology disagrees with writing a permit condition which precludes the use of any remedy. The prudent approach is to evaluate all remedial alternatives and select the best one(s).

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	183-H	183-H Solar Evaporation Basins Comments and Recommendations: Groundwater contamination and other issues associated with the evaporation basins suggest that they have not been closed appropriately under the regulations. Hanford Challenge Recommends that Ecology place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610 and WAC 173-303-650.	ECY accepted USDOE's closure certification for the 183-H unit on 5/13/1997.
Meredith Crafton	1325-N	1325-N Liquid Waste Disposal Facility: Groundwater contamination and other issues associated with the facility suggest that they have not been closed appropriately under the regulations. Hanford Challenge recommends that Ecology place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610 and WAC 173-303-650.	Response to Comments document for the 1301-N and 1325-N public comment period: Ecology agrees that parts of the permit are outdated. For the 1301-N and 1325-N units. The Closure Plans were updated to reflect the option for clean closure. USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure." 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018. Groundwater monitoring continues at the 100-N Area under the CERCLA cleanup actions.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	1324-N	1324-N Impoundment and 1324-NA Percolation Pond Comment and Recommendations: Groundwater contamination and other issues associated with the facility suggests that it has not been closed appropriately under the regulations. Hanford Challenge recommends that Ecology place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610 and WAC 173-303-650.	The closure report demonstrates that this site including the associated pipelines have achieved the soil closure performance standards established in the CMS/CP (DOE/RL-96-39, Rev. 1A). The pipe scale results indicate that residual concentrations in soil and pipeline scale will support future land uses that can be represented (or bounded) by a rural-residential scenario, and that residual concentrations throughout the site are protective of groundwater and the Columbia River. The soils underlying these sites and the abandoned influent pipelines are verified to meet the cleanup levels and performance standards. The closure activities were provided in the closure plan for these units and were implemented accordingly to allow for clean closure of each of these DWMUs. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. Groundwater monitoring continues at the 100-N Area under the CERCLA cleanup actions.
Meredith Crafton	General	SEPA Determinations Hanford Challenge Recommends that Ecology: · Utilize the SEPA checklists submitted with the Part B Applications and make Permit conditions to mitigate known impacts. · Withdraw its determination of non-significance regarding the current phase until it is known what all the Hanford Site mitigation plans will be. · Review all SEPA determinations for consistency with Washington State Dangerous Waste Permit Application; Part A Forms; the Unit-specific Permits; and the SEPA submitted with the Part B application of 9-2004.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	IDF	for IDF: 3. Base the Risk Budget Tool evaluation on the sampling results of releases from the bottom of the trench, and not take credit for the soil column. 4. Include a Permit condition requiring submittal of a set of testing protocols to verify how waste will release from the waste packages in IDF. 5. Revise/include a Permit condition to ensure the process for creating the Risk Budget Tool & that this process considers the following parameters; the concentration of contaminants in the waste stream, the waste form leachability, whether or not the releases from that material will exceed groundwater or drinking water protection standards. 6. Include impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool.	3. The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D and 8C.2022.2.D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. 4. The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum B, Waste Analysis Plan, and Appendix BA, Quality Assurance Project Plan for IDF Waste Analysis 5. The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D and 8C.2022.2.D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. 6. The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	3. Include/revise a Permit condition requiring monitoring of the entire 40 miles of unlined trenches. The monitoring system should include contaminants of concern associated with nearby operable units and the associated groundwater unit(s).	The permit does not require immediate cleanup of the 40 miles of unlined ditches. The permit uses a compliance schedule instead of requiring immediate cleanup. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Meredith Crafton	General	8. Utilize Ecology's omnibus authority under WAC 173-303-815 and revise/include a permit condition requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops.	Groundwater Monitoring Plans were revised to be compliant with WAC 173-303-645. In addition, standard conditions II.F were updated in a Class 2 permit modification in the Hanford Site-wide Permit, Rev. 8C and are already incorporated into the permit.
Meredith Crafton	LLBG Trenches 31/34/94	7. Inform the Waste Analysis Plan & Sampling and Analysis Plan and criteria for waste acceptance at the LLBG by the results of the Risk Budget Tool.	All waste received and disposed at LLBG Trenches 31 and 34 Is LDR compliant, as required by the EPA CAFO and the Ecology Agreed Order.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	LLBG Trenches 31/34/94	for LLBG trench 94 1. Include a Permit condition identifying the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). 2. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit condition requiring characterization of the vadose zone beneath the trench. 5. Revise/include a Permit condition requiring at a minimum, installation of four additional groundwater monitoring wells (two upstream and two downstream). 6. Utilize Ecology's Omnibus Authority under WAC 173-303-815 and revise/include a permit condition requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops.	This Groundwater Monitoring regime for Trench 94 was evaluated and the permittee compiled a white paper demonstrating that they have met exclusions from groundwater monitoring based on WAC 173-303-645 (Releases from Regulated Units). Ecology issued letter 23-NWP-156 accepting this exemption. This letter is part of the Rev 9A permit in place of a Groundwater Monitoring Plan.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	General	CA-1 Waste Management and CA-2 Groundwater Operable Unit Comments and Recommendations: 3. Include a Permit(s) condition(s) requiring submittal to Ecology of RCRA groundwater monitoring requirements from all CERCLA documents for incorporation into the units-specific Addenda housing the Groundwater Monitoring Plans. Ecology should require a crosswalk-table which identifies RCRA requirements in the CERCLA documents which are cited in the RCRA Permit and subject to WAC 173-303-830/840 process. 4. Until such time that Ecology has accepted the modeled results from the STOMP-1D code according to criteria in the Dangerous Waste Regulations, Ecology should require and incorporate unit-specific groundwater monitoring into the Permit(s) in compliance with WAC 173-303-610(2)(b)(i) requirements. 5. The statement that "Ecology, EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed waste groundwater contamination plumes originating from a combination of TSD and past-practice units" does not comply with the Dangerous Wastes regulations [WAC 173-303]; does not provide for RCRA groundwater monitoring, nor does it provide for public involvement in important groundwater decisions. 6. Include/revise a Permit(s) condition(s) to ensure the Permittee complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of contamination. 7. While the Permit requires the Permittee to supply "a sufficient number of groundwater monitoring wells, and (to) add new wells as necessary to catch contaminants movement in the groundwater and identify compliance status," the number of usable wells on the Central Plateau is rapidly decreasing due to the dropping Water Table. Ecology should revise/include a Permit(s) condition that requires a sufficient number of monitoring wells be sited according to subsurface studies that identify suitable thick intervals of wetted aquifer to support groundwater monitoring into the future.	3. CERCLA Section 121(e)(1) provides that no Federal, state, or local permit shall be required for the portion of any removal or remedial action conducted entirely on-site, where such remedial action is selected and carried out in compliance with Section 121. Therefore, Ecology may not include a Permit(s) condition(s) requiring submittal to Ecology of RCRA groundwater monitoring requirements from all CERCLA documents for incorporation into the units-specific Addenda housing the Groundwater Monitoring Plans. 4. At least for the dangerous waste management units (aka TSD units) included in the draft permit, Ecology has already incorporated unit-specific groundwater monitoring into the Permit. 5. The statement that "Ecology, EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed waste groundwater contamination plumes originating from a combination of TSD and past-practice units" is a factual statement. Ecology agrees that it does not provide for RCRA groundwater monitoring, but neither does it preclude Ecology from requiring unit-specific groundwater monitoring. Ecology also agrees that the statement does not provide for public involvement in important groundwater decisions, but neither does it preclude such public involvement. Ecology remains committed to appropriate public involvement (as much or more than required by regulation) for important groundwater decisions including CERCLA Records of Decision, TSD closure decisions, and TSD monitoring requirements. 6. Instead of including a general or standard (Part I and Part II) Permit(s) condition(s) to ensure the Permittee complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of contamination, Ecology included unit-specific requirements where appropriate. Typically the unit-specific requirements are incorporated through unit-specific groundwater monitoring plans. Unit-specific permit conditions call out those addendums. 7. Ecology uses the TPA milestone series M-24 to ensure that a sufficient number of monitoring wells be sited. A permit condition would be redundant to the requirement in the M-24 series. 8. Ecology has already included permit conditions for specific units to require identification of the number and location (and criteria for determining these) of

Commenter	Unit Group	Comment	Comment Response
		8. Revise/include a Permit(s) condition(s) in the Groundwater Monitoring Plan (s) to require identification of the number and location (and criteria for determining these) of groundwater and leaked waste monitoring wells. 9. The vadose zone is not present in the Permit(s) groundwater monitoring plans. Ecology should include Permit(s) conditions providing for Ecology's oversight of vadose zone characterization and remediation activities as an important segment of the overall Hanford clean-up schema. 10. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit(s) condition(s) requiring characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the Tank Farms and other mixed waste sites. 11. Ecology is cautioned that the Central Plateau Water Table level decline is making "wet" monitoring wells much harder to find or sustain. Since the Permit states that "Wells that are no longer sampled due to water table decline (i.e., "dry groundwater monitoring wells"), and for which there is no future use, must be decommissioned," Ecology should review/ include a Permit(s) condition(s) requiring evaluation of the utility of using these dry groundwater monitoring wells for use in sampling, using pore water geochemical sampling, radiological or geophysical methods prior to decommissioning. 12. Include a Permit condition to ensure Ecology authority and oversight of all pump & treat systems including how groundwater monitoring wells are installed (WAC 173-160); utilized; and managed.	groundwater and leaked waste monitoring wells. For example, Condition V.4.C.1.c.ii in the Single Shell Tank unit conditions requires a data quality objectives (DQO) process. DQOs are the criteria for determining data needs such as well locations and depth, numbers of samples collected, and analytical methods for samples. 9. The vadose zone is present in the Permit, although not in the Permit's groundwater monitoring plans. For example, Condition V.4.c.1.c.ii in the Single Shell Tank (SST) unit conditions requires alternative monitoring within the vadose zone. There are other vadose zone requirements in the SST unit conditions. The 200-DV-1 Operable Unit is the "Deep Vadose Zone" OU, and it is included in the CA-1 part of the permit. 10. Permit conditions for the Tank Farms are included in the SST unit conditions. Condition V.4.D includes requirements and schedules for plans for characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the Tank Farms. The OUs listed in the CA-1 part of the permit have compliance schedules for characterization of other mixed waste sites. 11. Several conditions in the SST part of the permit address use of dry wells e.g., Condition V.4.E.1.h.ii addresses "Dry Well Logging Data Requirements." 12). Requirements and schedules for pump & treat systems would be addressed through work plans provided pursuant to the compliance schedules described in the CA-2 Groundwater Operable Units part of the permit. An additional permit conditions would be redundant and potentially in conflict with CERCLA Section 121(e)(1) permit exemption.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	1301-N	1301-N Liquid Waste Disposal Facility, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, 216-S-10 Pond and Ditch, 216-B-63 Trench, 216-B-3 Pond Comments and Recommendations ... 4. Include Ecology approved and Dangerous Waste WAC 173-303 compliant RCRA Groundwater Monitoring Plans as attachments to unit specific Permits within their Closure Plan Addendums. ... 6. Require all unit-specific groundwater monitoring plans be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies. 7. Include in each unit-specific Permit the full list of COCs as noted or identified in unit- associated draft RI/FS documents previously submitted to Ecology. 8. Require use of a methods-based approach in the unit-specific Sampling and Analysis Plans. 9. Require use of non-filtered sampling in the Sampling and Analysis. Ecology should require repairs and replacement of wells per WAC 173-160. ... 11. Coordinate and incorporate RCRA inspection requirements for the unit-specific Permits with those for the associated CERCLA groundwater operable unit's.	Ecology agrees the closure of this unit must be in compliance with applicable regulations and relevant publications from State, federal, and local entities for protection of groundwater monitoring. This includes adherence to regulatory controls for sampling and analysis, identification of unit-specific chemical contaminants, and integration of RCRA and CERCLA requirements where applicable. A groundwater monitoring plan will be included in the Hanford Operating Record for each applicable closure unit, as they are completed. <u>Update</u>: The 1301 Liquid Waste Disposal Facility was clean-closed under RCRA and removed from the Hanford Facility RCRA Permit. This unit is still regulated under CERCLA and is in groundwater monitoring for radiological contaminants.
Meredith Crafton	General	10. Require the unit-specific training plans are included directly within the Training Addenda.	In reviewing the unit groups to prepare for the revised renewal, Ecology reviewed each portion of a Part A and B permit application to ensure an equivalent, enforceable, consistent, and implementable draft permit renewal was prepared. Each unit group was reviewed to determine if a Training Plan is required. For a complete list of unit groups and addenda, see the Hanford Site-wide Permit, Rev. 9A Fact Sheet.
Meredith Crafton	General	16. Permit(s) should include compliance schedules in accordance with WAC 173-303-610 closure regulations.	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.

Commenter	Unit Group	Comment	Comment Response
Meredith Crafton	LLBG Green Islands	Low-Level Burial Ground Closing Units (Green Islands): 1. Include Ecology approved RCRA groundwater monitoring plans as attachments to unit specific Permits within their closure plan addendums.	Groundwater Monitoring Plans for each of the Green Island burial grounds have been prepared and are included with the other Green Islands Addenda (Addendum D).
Meredith Crafton	General	Various Sites in the River Corridor (110 and 300 Areas) ... 2. Closure decisions and oversight/monitoring for most units in the river corridor have been delegated to the CERCLA closure process for surrounding decision units. We support this approach, as these isolated RCRA units are surrounded by CERCLA sites and it is not practical to try to close these sites, or to evaluate effectiveness of remedies, in isolation. However, at most units in the river corridor, including both post-closure and closure units for which the remedy is considered complete, there is significant residual contamination in the vadose zone and/or groundwater. The quick fact cards acknowledge continuing contamination ("Contamination will persist . . ." (1301-N); "Groundwater contamination in close proximity to the Columbia River is a concern." (300 Area process Trenches)), and while the plans call for continued monitoring of these sites, not all of the plans include a contingency for additional cleanup. Hanford Challenge recommends that Ecology include language in the Permit to clearly assert continued authority over management of these sites, including the potential to require additional cleanup should selected remedies, whether carried out under RCRA or CERCLA, prove to be inadequate (for restoration of groundwater as an example). 3. Closure plans for some units reflect decisions based on the 1990s-era data embedded in the plans that should be viewed with considerable skepticism. For example: · The 1301-N closure plan cites a DOE document stating that mercury will not reach groundwater for 1,000 years. · The 1301-N closure plan cites an assertion from DOE that there is not	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017. No dangerous waste exists at the 1301-N and 1325-N units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted

Commenter	Unit Group	Comment	Comment Response
		lateral movement of metals in the vadose zone. This broad assertion is apparently based on analysis of one metal (mercury) in one borehole. · At 1324-N/NA, it is asserted that there is no need for a cap. This conclusion is based on a claim that there is no driver for contaminant movement, because precipitation will not reach groundwater for 200 years.	a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. These units meet the closure performance standards established under WAC 173-303-610. Excavation of the Liquid Waste Disposal Facilities was completed before 2005 with confirmation of the cleanup occurring in 2011. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Meredith Crafton	183-H	· The groundwater monitoring plan for 183-H defines a local background concentration for chromium of 122 ug/L. While this might have been the concentration in plumes emanating from 100-D, it is difficult to accept this as a “background” concentration against which treatment effectiveness at the 100-F area can be meaningfully evaluated.	The current groundwater monitoring plan has been revised/updated with new background value for chromium. The previous 122 ug/L was used in a previous monitoring plan under PNNL. "Dangerous waste constituents from the regulated waste unit may not exceed concentration limits established by the Hanford Facility RCRA Permit [WAC 173-303-645(5)]. The concentration limit for total chromium (collected as a filtered sample) in the previous plan (PNNL-11573) was 122 µg/L. This value was determined in WHC SD EN-AP-180, based on background concentrations of upgradient wells 199-H3-2A and 199 H4 6." The current monitoring plan monitors total chromium at 48 ug/L.

Commenter	Unit Group	Comment	Comment Response
Michael Langelier	General	I am writing to please ask that the government stop dumping nuclear waste at the Hanford site.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Mike Conlan	General	Dept. of Ecology?: What is going on? Using our state for a radioactive dumping ground? Allowing more radioactive waste to Hanford is a death sentence, for both terrestrial and aquatic life - you know it will end up in the Columbia river and to the ocean. Who is getting rich radiating WA?? NO MORE RADIOACTIVE WASTE UNTIL HANFORD IS CLEANED UP !!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Mike Conlan	SST	Any rational WA resident would want the Hanford cleanup CLEANED UP! No more leaking single or double shell containers, trenches with radioactive waste dumped into them OR bringing in more radioactive waste. 1980 we had Mount St. Helen ash covering the planet - Now it's radioactive waste via the Columbia River!	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.
Mike Luzzo	SST	By all indications dangerous waste within tanks has a problem with suspension. To prevent problems in relation to reactivity by combustion and possible problems with minute particles reaching critical mass, could not a gelatinous mass be used? This could be a mixture or slurry composed of at least some sodium derivative. Whether it is chemical waste or particles of at least plutonium, could not a suspension resembling jello be used for this; as clarified by my statement. This is only a question, as I haven't worked out the chemistry on it.	The hazardous waste has not been fully analyzed in the SSTs. Introducing a gelatinous mass may react with one or more of the unknown chemicals may cause an incident and will create more waste. Plus the permittees would have to find and acceptable way to remove and dispose of the waste.

Commenter	Unit Group	Comment	Comment Response
Mike Luzzo	SST	Also can you build concrete catchment passage ways to contain pipe spills or at least put a clay freeze barrier under all your pipes?	Addendum H-1, "Tier 2 Closure Action Plan for the Single-Shell Tank system Waste Management Area C" states: "The diversion boxes house jumpers (remote pipeline connectors) that allowed waste to be routed from one transfer line to another. The diversion boxes are below-ground, reinforced concrete boxes that were designed to contain any waste that leaked from the transfer line connections."
Mike Luzzo	SST	In the October 1995 Final Env. Impact Statement for Safe Interim Storage of Hanford Tank Wastes it was noted that there was leakage in at least half of the SSTs. This issue still seems to [be] happening. May I suggest the following. The use of Freeze Barriers underneath these tanks to encapsulate the leaking single shell tanks. Such a Freeze Barrier could use a system of piping which could convey a slurry of at least a clay barrier, or composite materials could be used that would address items such as soil connectivity and minimization of further contamination. The danger of plumes are real from of at least chromium and carbon tetrachloride. Encapsulation is a good management practice and can and should be considered in this case.	Ecology acknowledges this comment. Ecology has discussed a similar option with the Permittees, but it was determined that any disturbance with the soil around or under a tank would impact the integrity of the tank and nearby tanks in the tank farm.

Commenter	Unit Group	Comment	Comment Response
Mike Luzzo	General	It has been suggested that plants be included within the new suggestions for the Tripartite Agreement. The only requirements were that these be for sandy soils, easily blown sand/dirt and a possible ability to hold groundwater contaminants. The plants suggested here are certainly not the only plants that may be available, but are such that should survive in either a shrub steppe or riparian environment. The only suggestions that may be made are to stay [away] from invasive grasses such as quack grass, cheatgrass and any grasses that might with blown seeds significantly impact area agriculture. Also stay away from bindweed (Morning Glory and other parasitic plants). If possible try some plants that would include those which will survive a xeriscaping environment (desert/ little water) and those with a deep taproot. Books such as Arid Lands (printed by PNNL) can be also of good help. Veiny Dock Rumex venous Cluster Tarweed Madia glomerata Goldenrod Solidago canedensis Black Cottonwood (wet soil, known. for ~mount of w~ter it draws) Populas trichocarpa Garry Oak (Dry Soil) Quercus garryanna ' Red Ossier Dogwood Corn us sericea Indian Ricegrass Achnatherum hymenoides Sandberg Wheatgrass Armetesia, such as Green Rabbit Brush, Grey Rabbitbrush Showy Milkweed Asclepisias speciosa Globe Mallow Sphaeralcea ambiqua Bottlebrush Elymus hydrix	Ecology appreciates the suggestions. Ecology applied WAC 173-303-610(2)(ii) and (iii) to ensure that closure performance standards are met. This administrative code ensure that the owner or operator must close facilities in a manner that "(ii) Controls, minimizes or eliminates to the extent necessary to protect human health and the environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated runoff, or dangerous waste decomposition products to the ground, surface water, groundwater, or the atmosphere; and (iii) return the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity." These efforts involve invasive species management and native species restoration activities that are lead by the U.S. Department of Energy.
Mike Luzzo	SST	By all indications dangerous wastes within tanks have a problem with suspension. To prevent problems in reference to reactivity, by combustion and possible problems with minute particles reaching critical mass; could nota gelatinous mass be used? That is, could not slurry of some kind, such as one with perhaps a sodium base or even one of clay be used to hold everything in suspension?? Nothing would react for an untold period and many tank problems would be solved.	The hazardous waste has not been fully analyzed in the SSTs. Introducing a gelatinous mass may react with one or more of the unknown chemicals may cause an incident and will create more waste. Plus the permittees would have to find and acceptable way to remove and dispose of the waste.

Commenter	Unit Group	Comment	Comment Response
Mike Luzzo	SST	why spills continue to be an issue under pipelines? Why not build a catchment basin of concrete as in an approved landfill or use a freeze layer made of clay for this?	Addendum H-1, "Tier 2 Closure Action Plan for the Single-Shell Tank system Waste Management Area C" states: "The diversion boxes house jumpers (remote pipeline connectors) that allowed waste to be routed from one transfer line to another. The diversion boxes are below-ground, reinforced concrete boxes that were designed to contain any waste that leaked from the transfer line connections."
Mike Luzzo	SST	It has been noted in the local media (Tri-City Herald) that problems in dangerous waste management is being actively studied. With this in mind I have a serious question. By all indications dangerous waste within tanks have a problem with suspension. To prevent problems in relation to reactivity by combustion and possible problems with minute particles reaching critical mass could not a gelatinous mass be used? This could be a mixture of slurry composed of at least some sodium derivation. Whether it is chemical waste or particles of at least plutonium, could not a suspension resembling Jello be used for this as clarified by my statement. This is only a question as I haven't worked out the chemistry on it. Also can you build concrete catchment passageway to contain pipe spills or at least put a clay freeze barrier under all of your pipes?	Tank waste is sampled before and after it is retrieved and transferred to another tank to be processed. Technology for tank waste processing and retrieval advances every year and is considered as cleanup of the site continues. Clay naturally expands and contracts with the heat and cold and is a good barrier to help catch any leaks that may happen. There is a set schedule visual inspection of the pipes. Ecology's main goal is to protect human health and the environment until and after closure of the Tank Farms, trenches, and facilities.

Commenter	Unit Group	Comment	Comment Response
Mike Unger	General	Dear Mr. Skinnarland, Regarding the Hanford Dangerous Waste Permit, I request the following: 1. Language should be added that bars offsite waste from being added until existing waste has been cleaned up.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Mike Unger	General	Dear Mr. Skinnarland, Regarding the Hanford Dangerous Waste Permit, I request the following: 2. Withdraw the current State Environmental Policy Act determination of non-significance until it is known what all the Hanford Site mitigation plans will be.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Mike Wifey	General	I would just like to address you guys here at the table. I think it's pretty obvious to you that we would not like to see this permitted. We would like to see this shut down after it's cleaned up. So, this is your responsibility and it's time for you stand up. We know how to stand up in our own ways, but since you're already there, you a part of this, you can close it down a lot quicker than we can. So, we're looking to you for not support, but for leadership, okay? Keep that in mind as you make your decisions. We will get civil disobedient if we have to. We've been known to do that before and this is a very good reason to become disobedient. So, let's not let it get to that point, okay?	The Hanford Site is no longer a production site. The focus since 1989 is cleanup and Ecology committed to regulatory oversight of Hanford with the signing of the Tri-Party Agreement. Ecology has a current permit for the Hanford Site-wide Permit, Rev. 8C. The renewal met requirements for WAC 173-303-806(11). It has been Ecology's commitment to renew the permit and ensure all the treatment, storage, and disposal unit groups are included in the Hanford Site-wide Permit. Following the public comment period in 2012, Ecology has been working with the U.S. Department of Energy on deficiencies identified in the permit renewal. Ecology's Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows state regulations, and is protective of human health and the environment for generations to come.
Miriam German	General	I'm here to represent people from Fukushima who were affected in Japan, who I've spoken to, who are dying, who will be dying due to nukes. I'm here to talk about all the people who have died in the Richland area, in the Tri-Cities area due to Hanford. I'm here to speak about the death of all of the people in Denver who have died due to Nukes in Denver and Colorado; in New York, in Georgia. I want it to stop. I want us to talk about death. I want you guys on the board, on the panel to think about people dying from these trucks that are coming through. It's not okay. Death isn't okay if we're causing it. I don't want to take up two minutes. All I wanted to do is stay that I'm here to represent death because that's what this represents. Think about it.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite and follow procedures which prevent travel during bad weather or poor road conditions.

Commenter	Unit Group	Comment	Comment Response
Nancy Kroening	General	This proposal to bring tens of thousands of truckloads of nuclear waste TO Hanford and bury the wastes in trenches is against everything Washington citizens voted for. It is totally unacceptable! The current wastes are not cleaned up yet, all these many years later! This should NOT be allowed. Our family IS directly affected!	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nancy Matela	General	First of all, we recognize the need for energy resources and the proper storage of waste but Hanford is not a viable option for the country's stored up nuclear waste. We believe that there are important unresolved matters that demand further scrutiny before the site is committed to future storage of nuclear waste. The draft hazardous waste permit does not explicitly spell this out. It leaves a huge hole for the federal government to drive through with new waste before the old waste has been taken care of. The federal government gives the state oversight of the USDOE's hazardous waste handling, but the draft permit is too weak to serve its oversight duties. ... 3. Off site waste is explicitly excluded from the draft permit except "as authorized via a permit modification decision." This is a major loophole that invites new waste.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nancy Matela	SST	1. Page 12 of your Fact Sheet says the "storage and treatment of mixed waste in Hanford's non-compliant single shell tanks…cannot meet the state's requirement because they lack secondary containment. There is currently no practical alternative but to continue to use the single shell tanks while the permittees build and start up a treatment plant that waste." This is incorrect. There have been several alternatives recommended but DOE and Ecology continue to put forth the "cover up" alternative. It appears to us that the Department of Ecology is rubber stamping the USDOE's preferred alternative of covering up the leaking tanks with dirt rather than totally cleaning them up. We applaud the citizens of Washington for the 2004 ballot initiative that said no more waste until the cleanup is complete (and we should add "effectively complete"). You, the State of Washington representatives, are not reflecting the will of your own people with this draft permit.	The Hanford Federal Facility Agreement and Consent Order (HFFACO), Appendix I, requires the Permittees demonstrate achievability of waste. The Permittees will remove as much waste as possible and Ecology will work with them to determine the percentage of residual waste may be left in the tank. The SST System has been determined to be closed as landfill, therefore the Permittees will close the SST System in accordance with WAC 173-303-640(8). Currently there is no technology that can remove these tanks safely, because of their size and amount of contamination. Ecology's goal is to protect human health and the environment until and after closure of these tanks.

Commenter	Unit Group	Comment	Comment Response
Nancy Matela	General	2. The draft permit approves piecemeal groundwater assessment of the units rather than as a whole. This assessment in isolation leaves the door open for taking on additional offsite waste. You have stated that you trust the DOE not to do this. This is a REQUIRED duty of yours and is NOT a matter of trust. It should be stated clearly in the permit.	Ecology has reviewed extensively and approved final status Groundwater Monitoring Plans (GWMPs) for each unit group that requires GWMPs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340. Addendum B, Waste Analysis Plans have been written for operating unit groups that do not require GWMPs yet. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nancy Matela	General	4. Repeatedly Oregonians and our local, state and federal representatives have testified before the USDOE and have written to Secretary Chu to say we strenuously object to shipping high level nuclear and mixed hazardous waste through our state. I have attached just one of these testimonies in case you don't have it. You should have a similar testimony from the mayor of Portland, Sam Adams, Senators Jeff Merkley and Ron Wyden and well as Representative Earl Blumenauer.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Nancy Matela	SST	I'm with Alliance for Democracy and Citizens for Safe Water and heart of America Northwest, but I'm here to speak for myself. I also am going to give you two for one because I'm also representing our state legislators. Seventeen of them wrote a letter to Secretary Chu and I will read just parts of it, but you get to check off two of them. My comments basically have been covered by all of you, especially Gerry Paulette and Chuck Johnson and I'm going to give you some specifics about how to make the permit stronger, because basically, it has no teeth in it. It's very weak. Here's three things that you can think about doing. On page 12 of the FAQ sheet, it says the storage and treatment of mixed waste in Hanford's noncompliant single shell tanks cannot meet the state's requirement because they lack secondary containment. There is currently no practical alternative but to continue to use the single shell tanks while the permittees build and start up a treatment plant for that waste. I understand that you're going to be addressing that a little bit more thoroughly, is that correct? Moderator: Yes. Nancy Matela: Okay. I just wanted to put it on the record that there have been several alternatives to this that have been proposed to DOE and Ecology and they have not been addressed, but there are alternatives. So, we don't feel that it's right to say that there's no practical alternative. Maybe it's not practical in your mind, but our lives are worth the money it takes.	Cleanup of the Single-Shell Tank System is very complicated. It takes around a year to remove waste from each tank. There are multiple documents that need to be written for each tank farm and tank. There are multiple TPA Milestones in place for USDOE to supply these documents and to retrieve waste from the tanks. The Rev 9A Permit will help regulate the cleanup actions and help USDOE to stay on track to stay on schedule. As for the plumes, they have been greatly reduced over the last ten years with the help of the Pump and Treat system. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. Part of the System Plan is to install a new DST to help with the retrieval and move waste to the Vitrification Plant. The Rev 9A Permit will be revised if needed to support a final System Plan.

Commenter	Unit Group	Comment	Comment Response
		Secondly, right now, the permit handles each of the units separately, as Chuck and Gerry said, that the groundwater is examined on an individual basis and our concern is that if you continue do that, that they'll say, oh, the contamination is below the level and you can have a loophole then to allow other waste to come in. It needs to be combined total. Third, you say that offsite waste is explicitly excluded from the draft permit, and yet, on the FAQ sheet, page 12, it says, quote, "except as authorized via a permit modification decision." If that's not a loophole, I don't know what it is. It sounds to me like DOE can just slide right through that. So, the letter that 17 of our Oregon representatives and senators sent to Secretary Steven Chu excerpted here, as state legislators representing Portland, Oregon, we urgently and respectfully ask that they Hanford nuclear reservation be removed from the U.S. DOE's list of candidate sites for national permanent storage of radioactive waste. While we recognize the need for energy resources and proper storage of waste, Hanford is not a viable option. We believe that there are important unresolved matters that demand further scrutiny before the site is committed to further storage of nuclear waste. And some of the weaknesses I just mentioned are some of those things that need to be scrutinized. Although, Hanford is just across the Columbia River from Oregon and is the most contaminated site in the Western Hemisphere, there are over 1 million people living downriver in Portland, Hood River, The Dalles and other Oregon cities and towns. We, the undersigned, urge you to immediately remove Hanford from the list of candidate sites. I will leave you the letter so you can see the senators and the representatives who wrote the letter.	
Nancy Matela	General	I am writing to you as a citizen of a larger world than the State of Washington. As a resident of Portland, Oregon, my family, friends and fellow citizens are downriver from Hanford and more at risk of damage from a failure to properly clean up Hanford than over 90% of the citizens in your State. In other words, your actions and decisions regarding the dangerous waste permit affect a larger world than just your politically defined borders. Please keep this in mind as you amend the draft.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	Do not ignore the legal requirement from Washington's State Environmental Policy Act (SEPA) for an EIS whenever existing sites contaminate the environment, violate standards, or when proposed permit conditions may not prevent significant adverse impacts to health and the environment. You can't ethically or legally rely on a 1996 EIS that was drafted before the USDOE acknowledged there were any tanks that leaked.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks has either been removed or are at the top of the list to be removed.
Nancy Morris	General	What you and other concerned scientists and citizens are undertaking is of the utmost importance. Even though this toxic legacy was introduced to most of us before we were born, it is up to us to address this horrendous task of making right what World War II and the cold war left us, our children, and the people of the Yakima Nation to face for generations. We should require the same urgency, existing at the time of the Manhattan project that created these weapons of mass destruction, in this present crisis -- to use our collective will and scientific research to clean up this highly dangerous contaminated area at Hanford now.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	In regards to this permit, do not allow on site highly radioactive toxic waste to be classified as “non-significant” -- instead classify this toxic waste at Hanford as “significant.” For example highly toxic waste currently in the 68,000 drums that have in some cases been sitting for 10 years and the 40 miles of unlined trenches holding unknown mixtures of highly toxic materials are stored in an illegal manner. Right now you are issuing a formal Determination that current contamination and illegal conditions are “non significant.” Withdraw this Determination and consider the waste “significant.” Doing this allows you to protect the people and the environment and to consider alternative mitigating measures with a new EIS.	We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	SST	You can't ignore the fact that the single-shelled tanks are already leaking; it was even discovered that the double walled tanks were leaking as of August 2012. Allowing the USDOE till 2040 to remove wastes from leaking single-shelled tanks to double-shelled tanks that are possibly leaking threatens the entire cleanup project.	Currently, there are 149 Single Shell Tanks (SSTs) at Hanford and they are all decades old. To reduce the risk of leaks to the environment, the bulk liquid portion of most of these tanks was removed and pumped into the Double Shell Tanks (DSTs). This was referred to as interim stabilization and was completed in 2004. USDOE also monitors all of the SSTs for leaks and intrusion of liquids into the tanks. With the bulk of liquids removed, and all tanks being monitored, USDOE can respond if any tanks are leaking. The SST System has been declared to be an unfit for use tank system. The USDOE has chosen to close the SST System. Current regulations require non-compliant facilities to be closed within 180 days. However, the Permittees cannot safely or practicably close the facility to meet the closure requirements within 180 days due to: • The complexity of the Hanford SST System, • The amount of waste in the system, • The nature of the waste (mixed waste – both radioactive and dangerous), • The fact that capacity to treat the waste is not yet on-line, • and the magnitude of soil and groundwater contamination caused by the discharge, spills, and leaks from the SST System. With this, waste will continue to be managed in the system for years before closure can be completed. The SST Permit Chapter outlines this closure process and sets requirements for the SST System while working toward closure. These requirements serve to protect human health and the environment until the system can be closed. The DSTs are now near their capacity and as you noted, one of them has been confirmed to have leaked into the secondary containment, but not to the environment. Tri-Party Agreement (TPA) milestone change package for M-062-40 was completed. This milestone requires a contingency plan to address a number of situations. Should Ecology determine that the best option(s) is or includes new DSTs, we could utilize a number of methods including the permit, the TPA, or agreed orders to institutionalize that requirement.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	Require the USDOE to use a licensed treatment facility next to Hanford (Perma-Fix Northwest) for 12 tanks holding lower level radioactive waste to begin some of the cleanup. This is not to take the place of the vitrification plant to be built. These 12 tanks may then become available for use before the vitrification plant is built and in event tanks are needed if some others are found to be leaking.	While Ecology can require USDOE to treat wastes, and can require USDOE to treat wastes within prescribed time frames, Ecology can't direct USDOE to use specific commercial facilities. Permit requirements relevant to this comment include V.4.H.4.c.ii(a), which states that closure plans for Single Shell Tanks must have "A description of the methods to be used during closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all dangerous wastes;" So this condition anticipates a future identification of the treatment methods. This condition does not require consideration of "Use of existing nearby commercial treatment facilities, e.g., Perma-Fix Northwest" but neither does this condition preclude it. Further, in response to the suggestion that "These 12 tanks may then become available for use before the vitrification plant is built and in event tanks are needed if some others are found to be leaking." These 12 tanks are single shell tanks that USDOE declared "unfit for use." USDOE would be unable to use these tanks to store waste if some other tanks are found to be leaking.
Nancy Morris	SST	We need NEW double-shelled tanks now that are designed with out the use of cheaper carbon steel. If there is any way your department can demand that new tanks be made available as soon as technically feasible, it should do so with urgency. Therefore the permit needs strict new standards for maintaining the toxic waste in double-shelled tanks to prevent corrosion and leaks. Further the permit needs to clearly address how fast actions must be taken to intercept and remove wastes from the soil under single shell tanks to protect groundwater.	The Single Shell Tanks (SSTs) are a closure unit. The tanks will be emptied and the waste will be treated and disposed of in a manner that is protective of human health and the environment. Addendum D, Ground Water Monitoring Plan details how the groundwater will be protected.
Nancy Morris	General	Ecology needs to regulate ALL 40 Miles of trenches. This should be clear in the permit. There is no way to regulate small segments (islands) in a half-mile trench. The entire trench must be regulated. Either USDOE should be required to investigate and characterize the wastes in the trenches, or just go ahead and remove and treat the wastes. Soil column monitoring and groundwater monitoring need to be required - there should be hundreds of wells around these forty miles of trenches.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	No more radioactive and highly toxic waste can come to any site at Hanford, not even in ten years, until existing toxic contamination is cleaned up and a fully operational vitrification plant to glassify the waste is in place. The current permit fails clearly to include a condition barring offsite wastes from any new landfills and is unclear by allowing UDOE to bring wastes in 10 years from present. Existing contamination and wastes will contaminate groundwater over and over for thousands of years unless all efforts are made now to get this under control.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	I'd like to say first that I will be submitting more detailed comments in the mail. First of all, I would like to point out that after seeing the presentation and seeing [inaudible 8:12] even by the Department to Ecology, I would begin to lose sleep if I was in your department. And on the way that this whole process is going on, the delays, the billions of dollars of spending that has been wasted, and the fact that the DOE has been responsible for at least four failures in trying to make a plan to classify the waste. At least four times now it has failed the public. And I also would like to say that if we took the Department of Energy out of this entire process, we'd be a lot better off. It's very hard on anyone who comes up and speaks out about the mistakes or scientific -- excuse me, not scientific, but this, the technical failures that are going on at Hanford, the DOE is very hard on its whistleblowers, and I think we should all commend these scientists and engineers who are will willing to speak up. And I also feel that the dynamic that's going on with the Department of Energy and other agencies is almost like an abusive relationship, that we put up with the abuse by a perpetrator and we find ways to make excuses for them to continue the forms of abuse. I'm speaking on -- just looking historical had how much failure the Department of Energy has been responsible for, and this goes back 28 years, at least, that we can look back on. And the fact that we're looking at how 2040, I will probably be -- you know, I will be extremely elderly by then. We could have had a lot of this problem solved over a decade ago and I know that many of you in this department feel the same way, and it's difficult to be able to speak up and voice these concerns. We really do want to be of help as far as the citizenry out here. So, let's see. Those points said, I will make other comments later that are more detailed. But, I just really feel that we need an agency that is strictly focused on cleanup, that has nothing to do with the Department of Energy, or has a military contingency or background connected with it. Otherwise, I don't see how you're going to make any headway. It's like we're continually stuck in this circle of trying to work with DOE. It doesn't work. It hasn't worked. And billions of dollars have been wasted.	The U.S. Department of Energy is the federal agency responsible for Hanford and its cleanup. Ecology partners with the U.S. Environmental Protection Agency, as regulators, to make sure that Energy's deadlines are met as outlined in the Tri-Party Agreement. The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Nancy Morris	General	No more radioactive and highly toxic waste can come to any site at Hanford, not even in ten years, until existing toxic contamination is cleaned up and a fully operational vitrification plant to glassify the waste is in place. The current permit fails clearly to include a condition barring offsite wastes from any new landfills and is unclear by allowing UDOE to bring wastes in 10 years from present. Existing contamination and wastes will contaminate groundwater over and over for thousands of years unless all efforts are made now to get this under control. Please take the strongest actions you can that include the highest level of ethical, moral, and legal solutions to drafting this "Dangerous Waste Permit" for the Hanford Nuclear Reservation. So much is at stake and we cannot afford any more delays or mistakes of the past. The lives of millions of people are indeed at risk as are all living things within the biomes affected by the Hanford Nuclear Reservation -- the Columbia River, Washington state, western Idaho, southern Canada, Oregon state, and finally the Pacific Ocean.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nancy Streiffert	General	Hello, I am concerned about the draft 10 year dangerous waste permit. It does not go far enough to protect Washington and the Columbia River. The permit needs to prevent the addition of any new radioactive nuclear waste to the Hanford site until the current leaking tanks and ditches are cleaned up. The proposal to cover the ditches and only monitor a small section of the surrounding area is not adequate. The monitoring wells need to be all along the 43 miles of ditches to be sure that no radioactive or other toxic waste is leaking into the soil and then into the Columbia River. The governor's and other agencies promises to do these things is NOT good enough. It must be clearly stated and agreed to by all agencies involved before the permit is issued. Thank you for protecting Washington's environment and the health of all living creatures.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Nathan Rodke	General	I am strongly opposed to adding any more nuclear waste to the Hanford site. As a taxpayer, I feel I must express myself as I know this is the opinion of many others as well. We need to leave the lands of our state and our planet in the kind of shape that we found it, if not improve upon it. The eyes of history are upon us and we need to step up and recognize it is not ok to dump nuclear waste!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Pamela Wilcox	General	I want to start with saying that considering no insurance companies on the entire planet will insure anything to do with nuclear energy or weapons, I wish they would just quit -- get rid of them all. Stop everything to do with this. I am very strongly opposed to them burying them in the ground. If they leak, we won't know until way too much damage is done. They should be put in warehouses or something to where we can monitor them at all times. I don't -- to cover them up and not clean it up, that is of a concern. The old school attitude -- I was born in '49 and I can remember when people started talking out against polluting the planet period. Lorne Greene comes to my mind, the act from Bonanza. He showed things that were being poured into the rivers and the effects of them and things, and I can remember people retaliating against him and saying, "Oh, the planet will be able to just take care of it. We don't have to worry about it," and hopefully, we've come to the point where we understand we do have to worry about this. We have sun, wind, geothermal, and biomass energies that we could be using. We don't need to use this toxic stuff that's killing everything. I am a downwinder. I spent the first 28 years of my life in Lewiston, Idaho and I have paid for that. I had to have a breast removed. Secrecy does beget abuse. Everyone knows this. I advice everyone to buy Geiger counters and I will end by quoting George Carlin, and I will clean it up. I won't use his words. Mother Nature has nothing to worry about from man, he'll just mess up his atmosphere so much he won't be able to exist anymore. Give her 10,000 years and she'll be better than ever.	The Nuclear Waste program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. Our communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. We are constantly working to improve our public involvement and engagement opportunities.
Pat Hazlett	General	It is time to clean up Hanford once and for all! We can no longer allow this situation to go on and to be adding to the problem by adding more waste to Hanford. I, for one, say enough is enough...clean it up now!	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Paul Emerzian	General	I am writing concerning the issuance of the dangerous waste permit for the US DOE with regard to Hanford. It is my understanding that the DOE wants to bring 30,000 truckloads of offsite nuclear mixed waste to dump at Hanford. The DOE's own scientific review contradict carrying out such a plan, concluding that it would have a negative impact on the cleanup process as well as the Columbia River. In addition, transporting the nuclear mixed waste to Hanford would pose an unacceptable level of risk to those near the transport route. Again the USDOE, using an estimate for a similar situation, estimated that 800 people would die as a result of exposure to radiation from the transport trucks. Of course our children would be at the greatest risk from this exposure to radiation.	Thank you very much for your comments on transportation issues in the Hanford Sitewide Permit. Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. Following is information that addresses some concerns. Background Information on Transportation of Radioactive Waste The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. NRC sets design and performance standards for containers that carry radioactive materials. NRC also establishes safeguard and security regulations to minimize the possibility of theft, diversion, or a terrorist attack on shipments. DOT regulations require carriers of radioactive shipments to use “preferred routing,” which takes into consideration such factors as: accident rate, transit time, population density, activities, time of day, and day of week. The safety record for shipping radioactive materials is remarkable. For example, there have been more than 11,000 shipments of radioactive waste to a disposal site in New Mexico, and more than 13 million miles traveled without a single reportable incident. Concerns Regarding Additional Exposure to Radioactive Materials According to the National Council on Radiation Protection and Measurements, the average person receives around 360 millirem annually from natural and manmade sources of radiation. A millirem is a unit of absorbed radiation dose. People living less that a 100 feet from a transport route and exposed to a vehicle containing the highest level or greatest quantity of radioactive materials would receive 0.0005 millirem per shipment.

Commenter	Unit Group	Comment	Comment Response
Paul Emerzian	General	The dangerous waste permit must bar adding more waste to Hanford in so far as the current wastes at Hanford are predicted to contaminate in excess of ground water and health standards. The USDOE must not be allowed to add more offsite waste to existing or new landfills, vaults or boreholes in keeping with the principle of "cleanup first".	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Penny7743@comcast.net	General	The Columbia River is a national treasure. It is in danger of contamination by already existing nuclear waste leaching into the ground water and eventually into the Columbia itself. Human lives as well as wildlife are in danger from this contamination. Our government needs to concentrate on cleaning up the hazardous nuclear wastes already existing at the Hanford site - certainly not add to the problem. In view of the current risks to the environment already looming, it is sheer folly to use the area to dump additional nuclear wastes. I, along with my fellow Washingtonians and environmentalist in the Northwest, implore the federal government to abandon any attempt to use the Hanford site as a nuclear waste dump!	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Phyllis Fiege	General	Please -- no more waste at Hanford until all waste is stored safely -- no half measures.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

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Phyllis Fiege	General	Since 1985 I have been concerned about the clean-up of Hanford. For 27 years the DOE and various companies have not been able to safely store the radioactive waste from the facilities at Hanford .I've seen goals and deadlines postponed, moved to the future. My question is why? We in Washington State have objected strongly to accepting any more waste until Hanford is cleaned up and all waste safely stored. So far our efforts at Hanford seem to be minimal --unlined trenches, waste tanks not fully emptied, poor monitoring of contaminated groundwater which is moving to the Columbia River. Sometimes I think we should no longer produce any radioactive materials until we know how to safely store the waste. We are only harming ourselves and our children. Please no more waste at Hanford until all waste is stored safely--no half measures.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Phyllis I. Clausen	General	The latest draft, however, has plans to send more waste to Hanford. ... Washington citizens do not want to give USDOE the authority to send more waste to Hanford. The overwhelming vote against making Hanford the nation's nuclear waste repository made our views very clear. On behalf of the Washington citizenry, please use our state authority to disallow more nuclear waste being sent to Hanford.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Phyllis I. Clausen	General	It [the permit] would permit covering up, not clean up, of existing wastes. But Washington state has both the authority and the responsibility to assure that waste which is present now be truly cleaned up. Please exert that authority.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Rebecca Campbell	General	Last year, in Portland, Oregon, I attended the hearing there concerning the Hanford site and I also was attempting to attend one [inaudible 35:13] called away for an emergency last July. I'm not certain why we have to keep coming back to tell the state and the federal governments that we do not want any more waste put in this plant and we want it shut down. At this hearing, 75 people spoke. Other than one person, every single one of them said they wanted it shut down. The majority of them used the word "genocide." A physicist who spoke, spoke about Onkalo, where Finland is actually using state of the art best practices to manage the waste and there's not one word of Onkalo or best practices uttered by the state, as far as I've heard tonight, by the state of Washington or the federal government. When I got up to speak, I spoke about technologies that had been deliberately suppressed by the government, the Department of Energy actually had them and I presented evidence concerning this. I didn't hear any mention of this tonight. However, all of this is a moot point because very soon, there are going to be televised mass arrests of government officials within the federal government. The State of Washington -- and this will go down to the governor's level -- the state of Washington will be once more free, that will include you, to assert its sovereignty and begin to clean this up without the shackles of the federal government anymore threatening it or bringing more waste into this state to threaten the people. I wanted to inform everybody in this room of this and you can regard me as crazy, but I wanted to plant some seeds so when it does happen, you are not going to be utterly shocked. But this does not have to exist. This is a completely unnecessary situation which is about to end.	Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. The Hanford Site is no longer an active production site. Its mission has been cleanup since 1989.
Rebecca Treficanta	General	My question is why is the Department of Energy kind of hiding the types of safeguards that they are providing for the vitrification plant, and how is that going to be made more to the public in regards to the safety of not only the people in Washington, but those directly affected by the Hanford site?	WTP hazards are analyzed and described in WTP DWP Chapter 6, Procedures to Prevent Hazards, and WTP DWP Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
Reed Jackson	General	I'm a little shook up by tonight. I grew up in Canada. I have dual citizenship with -- as the United States. My family was extinguished, most of them, in Germany as Jews. And we fought really hard in the United States to grow our family. I'm really concerned as my niece and nephews come out, especially with Hanford being so close to us, that they have all their fingers, their toes and they're not deformed like these folks. And I want you to look at this. This is what radiation does to people. And this is what radiation will do if we continue to allow Hanford to pollute our rivers, pollute our lakes, and so on. I used to fish with my grandfather and my dad on the Columbia as a child. I can no longer do that. I can't eat the fish out of the Columbia River because of the toxic levels that in it. The EPA is not tested with that fish. Even the issues with Fukushima, it took a year for any testing and there's not additional testing that is done. I want this [inaudible 31:00] to be part of the public record.	Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. The Columbia River is regularly monitored for Hanford contaminants. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.
Rhonda McMillan-Jelinek	General	I'm a mother, I'm a grandmother, I'm with Occupy Portland. I want to make this real short and sweet. I was shocked when I started discovering all of the facts that I've learned over the last couple of months with Hanford. I thought I knew a lot. Apparently I didn't. I implore you to be honest with us. Stop pretending everything is okay. When we went to Hanford in April, I was amazed at the culture of denial that's there. I talked with a couple of the people who went to high school there. The symbol for Richland High School is a mushroom cloud. The rally cry for Richland, Proud of the Cloud. It's time it stops.	Our Nuclear Waste Program's communications team strives to tell an honest and accurate account of the Hanford Site's history, in addition to being transparent when discussing ongoing cleanup work. Our program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come.

Commenter	Unit Group	Comment	Comment Response
Richard Ellison	SST	I have a Masters in Plant Ecology, and in 1986, I had the honor of going to the Hanford reservation with a congressional aid of Congressman Bunker at the time. One of the thing that came out of that meeting in spite of my sending my resume to them in advance and letting them know that I had -- I was just a graduate student, they kept referring to me, all literature that was presented to me was, “Oh, Dr. Ellison,” and I was not a doctor. I was on a professor Ellison at the -- I was a graduate student. My concern right now is that over the decade that I’ve been coming to these kinds of hearings is that there’s so much wishful thinking and so much hope and there’s so much hard work being put into it, but the reality is that there’s only seven double-wall tanks, these are leaking, they were built with the carbon steel which is a [?cheaper 16:42] product. The single-wall tanks are leaking. When I was at Hanford, I had direct conversation with the head of the environmental program there, and he said, “No, none of the leaks have ever reached the groundwater at Hanford.” And so, now there’s this admission about, oh, yes, we have had some of these leaks reach the groundwater at Hanford. There are all these calculations that were done for the original EIS, that was in the ‘80s, and I took a class that directly addressed examining the Hanford Environmental Impact Statement in the 1980s and the professor who was teaching the class basically was a statistician and him and his colleagues basically tore all the calculations apart that were saying, well, gee, how long is it going to take for any of these nucleotides to get into the groundwater, then eventually get to the Columbia River or somewhere else? And everything was based upon these wishful thinking calculations. And so, again the point is, here we are, we’re not building any more double-wall tanks is what you’re telling me, we have the single-wall tanks leaking, we have the double-wall tanks leaking, we have a situation where everything is banked up on these vitrification plans, it’s a lot of wishful thinking because there’s all this discussion about various problems and why are there problems? The knowledge that we know is that these tanks wastes that are included in them are such a mixed and hodgepodge of nitric acids and different kinds of acids, as well as all the wastes that were put in there. They’re the high-level wastes that we’re dealing with -- we	In the mid 1990's it was discovered that the past leaks from the SST had impacted groundwater beneath many of the single shell tank farms. Currently there are no known leaking SSTs and one DST has leaked into the annulus and since been emptied. The risk associated with tank waste was addressed in the Tank Waste Remediation System EIS in 1995 and in the Tank Closure Waste Management EIS in 2012. It is based on these analysis and the regulations that Ecology sees the path to mitigation is moving the waste from the SST to the newer DST and to treatment in the vitrification plant. The ultimate mitigation to the risk is immobilization of the tank waste and appropriate disposal so that impact to the environment is limited. To this end, Ecology has requirements for emptying the SSTs, DSTs, and building and operating a treatment system for tank waste.

Commenter	Unit Group	Comment	Comment Response
		don't really know, we are only guessing what's going to happen when the vitrification plant is done, will it really work? So, the idea that having some alternative contingency plans and having an environmental impact statement that says, yes, there are going to significant impacts, what will happen if the climate changes? What will happen if the vitrification plant is not built and the tanks are still leaking and we don't know what we're going to do with the wastes? There seems to me that it's -- what we're doing is keep passing it on to the next generation of employees and citizens, "Here is your hot potato, we've done what we can, good luck," and to me, this is a failure because for one, we do not know what the political climate's going to be like in the future in the United States. We don't know what's going to happen to the history of many other nations and the future of the United States. We don't know what's happening with the climate and how that's going to change in the future of the United States.	
Richard Ellison	WTP	The impression from all the pretentions that have been given to me and everything that I've seen from then is basically, it's a lot of wishful thinking. Hanford has been based upon just great hopes and great wishful thinking, and I believe this idea of the vitrification plant is going to be open and operational in 28 years is very similar to the fact that 26 years ago, I was on the Hanford Reservation and they were saying -- they were talking about the double-wall tanks and how they're going to be draining all the single wall tanks and how wonderful it was going to be, and how much it was going to cost. And their biggest concern was could we give them more money? That was what they were kind of talking to my friend who was the congressional aide, it was like, "How much more money can we get for our operations here at Hanford?" and that's what their big concerns was.	The WTP facilities necessary to begin treating low-activity tank waste were ready to receive tank waste in 2025, in the Direct Feed Low Activity Waste configuration.

Commenter	Unit Group	Comment	Comment Response
Richard Ellison	General	We're talking about radio nucleotides are going to last for 10,000 years, 100,000 years. And it's all based on essentially, "Oh, yes. We're going to have it all cleaned up in 20 years and it's going to be all put away and everything's going to be fine." And if, in fact, it isn't going to be that way because of the long history of delays and denials and hopes and failures of technology, sure, we're making some progress, but it's not fast enough, and there's no guarantees, and if this vitrification plan doesn't work, what are we going to do? Is there an earthquake? Is there a climate change? Is there going to be increased rainfall? It's unfortunate and I'm sure we'll all be here again trying to do the right thing and I'm sure you're all trying to do the right thing, but what we have right now is an inadequate plan if we do not have major contingency plans if the vitrification plant does not work.	The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup. The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, including contingency plans, and is protective of human health and the environment for generations to come.
Richard T. Saunders	General	Dear Mr. Price: Referencing my comments at the Seattle hearing in mid-September, please find elaborations on Fort Calhoun's status at the two Internet sites below. I would like to include them in my testimony. Can you arrange that, or should I? If so, how? Thank you for your attention to this matter in the context of any risks faced by the Hanford Reservation in the event of a Grand Coulee Dam collapse from earthquake effects. In that context, can you refer me to the USGS citation defining the earthquake level Grand Coulee Dam is designed to withstand? NRC Whistleblower Claims Flood Threats at 2 Nuke Plants http://www.huffingtonpost.com/2012/09/14/flood-threat-nuclear-plants-nrc_n_1885598.html Fort Calhoun Plant Remains Closed From 2011 Missouri River Flood http://en.wikipedia.org/wiki/Fort_Calhoun_Nuclear_Generating_Station	Hazards are analyzed and described in Attachment 4, "Hanford Emergency Management Plan," each unit group Addenda F, "Preparedness and Prevention," and each unit group Addenda J, "Contingency Plan". These documents identify the hazards that could be encountered, and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
Richard T. Saunders	General	And my question deals with whether or not any past or present DOE EIS has dealt with a scenario envisioning Grand Coulee Dam's ability to withstand up to a 9.0 Richter scale earthquake, and whether there has been an analysis of any resulting flooding at Hanford Waste Storage facilities as they exist today. The background factors for raising this question are recent developments that have occurred in three cases, Fukushima 2011, Missouri River floods of 2011 that knocked out the only nuclear plant in Nebraska and it's still inoperative, and the fact there's a dam risk test coming up soon on the -- on an east coast river above a nuclear plant on which I will be happy to provide more detail if requested.	Hazards, including earthquakes and flooding, are analyzed and described in Attachment 4, "Hanford Emergency Management Plan," each unit group Addenda F, "Preparedness and Prevention," and each unit group Addenda J, "Contingency Plan". These documents identify the hazards that could be encountered, and establish plans for how the hazards will be addressed.
Richard Till	General	Friends strongly opposes allowing any new hazardous waste to be disposed at the Hanford Site. Ecology's permit should prohibit the USDOE from shipping new waste to the site. Hanford is already the most contaminated site in the Western Hemisphere where the USDOE is already engaged in one of the largest and most complex cleanup projects in U.S. history. The number one priority should be to stop waste from leaking into the Columbia River and clean up the existing waste at Hanford. Given USDOE's failure to meet existing cleanup timelines, it is imperative that Ecology prohibit the USDOE from sending more waste to Hanford. Even if the existing contamination is fully cleaned up the harm that has already occurred to the Hanford site and downwind and downstream communities is unacceptable. Piling on additional risks to the Site and affected communities is completely unacceptable. Absolutely no new nuclear waste should be stored at Hanford.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.

Commenter	Unit Group	Comment	Comment Response
Richard Till	General	If the permit were to lead to shipping new waste to the Hanford site, it would effectively allow thousands of trucks with dangerous radioactive waste to travel along interstate routes, such as Interstate 84, passing through cities, rural communities, and the world renowned Columbia River Gorge National Scenic Area. Interstate 84 travels the length of the Gorge and is often within a few feet of homes, schools, critical wildlife habitat, and the Columbia River. These communities are already subject to risks associated with being downstream of the Hanford site. USDOE's own projections estimate 816 fatal cancers from waste shipment alone. In addition the risk associated with an accident during transport, shipping waste is simply an unacceptable risk to the environmental and human health.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Richard Till	SST	Ecology should not allow USDOE to leave 1% of waste in high-level nuclear storage tanks. Ecology should require that these tanks be fully closed, not just covered up.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Richard Till	CA-1	Ecology should also regulate the full length of all waste trenches, which will require installation of extensive monitoring wells.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Richard Till	SST	Ecology's draft SEPA determination relies on a complicated phased review that incorporates numerous separate SEPA determinations or relies on future SEPA determination related to closing of single shell tanks. It appears that Ecology is improperly conducting piecemeal environmental review and avoiding taking a hard look at all direct, indirect, and cumulative impacts of all impacts of nuclear waste clean-up and storage at the Hanford Site. Ecology must acknowledge all likely environmental impacts now and adopt permit conditions or SEPA mitigation measures that will actually avoid significant adverse impacts to human health and the environment.	Ecology provided a SEPA determination for Rev. 9 in 2012. SSTs received a Determination of Significance and Adoption of the TWRS EIS for the Rev. 9 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Richard Wood	General	Here are my thoughts on what is missing 1) No additional radioactive materials will be considered for containment, management or traverse within the cascade region and watersheds until the Hanford site has: a) made significant progress in properly containing for storage radioactive elements whether from fuels or waste, b) has a proven record in the safety, technology, risks and value for the tax dollars being spent c) there is a location for the tomb required to put the toys in when they are done. I vote no confidence.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Richard Wood	General	2) Proper funding given for the life of the project. This can not be diverted or gerrymander nor it's goals with clear concise independent oversight, defined and staffed IG roles, with a chain of command and a 50? year budget since that duration is moderately in the current requirements estimates.	According to the Tri-Party Agreement, Paragraphs 148 and 149, it explains the federal budget process and the opportunities for EPA and Ecology to provide recommendations and priorities to USDOE. In addition, during this time, USDOE provides budget information to members of the public and Tribal Nations as an opportunity to receive input and comments. The Tri-Parties are committed to funding the efforts at Hanford to clean up the site.

Commenter	Unit Group	Comment	Comment Response
Richard Wood	General	3) Data capture, recovery and reporting. I do not see where the environmental quality monitoring process is laid out. Who, what, when, and where of all environmental testing, past to future. Locations, test requirements, results and meaning of the data This testing is critical, a hard measurement of the cleanup process effectiveness. We have let these things fall apart for lack of attention, meddling with rules and poor funding over the last decades. You know if you can not ask and do not have funds for elemental testing it makes it very hard to get done. I expect to see full elemental assay's and recurring monitoring and reporting requirements. Nor have I found the plant stack emissions permits or testing requirements, I know that stack is likely not designed but at a Bechtel presentation I noted a poster advertise 99.% pure HEPA filtered output. What would you think of that? I did not bother to read the full context of that poster. Having worked with ultra high purity materials sampling and assay I walked away a bit discouraged thinking questions would be met with a smile and platitudes.	Prior to receiving and treating Hanford tank waste, the Permittees are required to complete Environmental Performance Demonstration Test (EPDT) at the WTP facility. EPDT would demonstrate that the vitrification systems can achieve an organic destruction and removal efficiency (DRE) of 99.99 percent. DRE is a system's ability to destroy through combustion or remove from emissions a chosen organic contaminant. To perform the test, the Permittees will have to increase the waste simulant feed to the melters during cold commissioning with a known amount of organic contaminants and measure the concentration of the contaminant after treatment and before discharge. For more details about EPDT, please see EPDT Plan, located in WTP Permit Appendix 9.15.
Richard Wood	General	I am a resident of Oregon and have to vote No Trust with your agency, you are being out maneuvered by the industry at the federal congressional level. I feel the rules in creating the agreement were too heavily swayed by politics and not science and the state of Washington does not have the funds or charter to represent what is a global concern. One agency, that struggles, to represent the health and safety of your own state let alone the Cascades as a region in what is truly a global matter? Radioactive waste has the potential to destroy all life on earth. An accident at a facility is an act of genocide to a region and potentially the planet. Australian aboriginal peoples named a vast area of their continent the sleeping lizard. It is land area with the with the largest heavy metals concentrations they shun traditionally for fear of the lizard. They were aware of something we have harnessed, oddly we see using these minerals as resources to harvest and plunder instead of fear or respect.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.

Commenter	Unit Group	Comment	Comment Response
Richard Wood	General	I could go on, I hope I am not alone in the so many concerns about the DOD/DOE nuclear industries performance and seeming lack of my government to regulate the industry for the good of the nation. I rambled but if you have a question or comment I want to support my government and feel confident it is working for me.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Richland Till	General	Friends of the Columbia Gorge ("Friends") have reviewed and would like to comment on Department of Ecology's ("Ecology") draft permit for the treatment, storage, and disposal of dangerous wastes at the U.S. Department of Energy's ("USDOE") Hanford Site. Friends is a non-project organization with approximately 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge and surrounding lands through the effective implementation of local, state, and federal laws. Our membership includes hundreds of citizens who reside or recreate within the Columbia River Gorge and Gorge communities. Our membership would be adversely affected by both hazardous waste transported through the Gorge for disposal at the Hanford Site and by hazardous waste released from the Hanford Site into the Columbia River.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions.
Rick McCain	SST	Comments to Unit Description The unit description should incorporate boreholes, monitoring wells and drywells associated with the WMAs. The drywells have been measured with various instruments for over 60 years and represent a valuable resource for the historical assessment of vadose zone contamination. They are currently used for logging, and as electrodes for resistivity studies. The Permittee should be required to maintain and protect the drywells, including proper labeling and prevention of water intrusions. Some of these drywells were constructed in such a way that they may serve as pathways for contaminant movement deeper into the vadose zone. These drywells should be identified and remediated as soon as possible.	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.B.2.a] The Permittees will submit the process information described in V.4.B.2.d that has been identified as of the effective date of this Permit for the SST System to Ecology within 180 days after the effective date of this Permit. Permittees will submit such information through a permit modification request in accordance with Permit Condition I.C.3. Upon Ecology approval, the submitted information for SST System will update Addendum B to this Permit. Facility description and process information for the 760 drywells should be provided according to V.4.B.2.d. This would include historical and current descriptions of the "facilities" and assembling and providing a complete record of logging and well information (some of which is only available as strip charts and tabulations or readings from the 1950s and 1960s). This condition is necessary to facilitate closure decisions. Soil contamination is identified as an SST system component. According to estimates based on geophysical log data, approximately 400,000 cubic meters (14,000,000 cubic feet) of soil is contaminated with Cs-137. This estimate is considered low because contamination below the maximum depth of the drywells and outside the tank farm boundaries is not included. Process information should be included for this component as well.	This section is no longer needed and has been removed. Also, Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.E.1.h.i] The permittees will evaluate leak detection monitoring technology every five years and provide the evaluation to Ecology in a report. This condition is not timely because the SST system is aging and retrieval operations are ongoing. Recommend a requirement for a preliminary report to be issued no later than 180 days after the effective date of this Permit. The Permit should require that the report be subject to review by an independent panel of experts. Gamma logging in drywells has been performed in the SST system since the 1940's. Data are available in the form of strip chart recordings from at least the early 1960's. In the mid 1970's numerous additional drywells were installed in the SST tank farms. Since 1974, much of these data are available as electronic data files. From 1995 to 2001, the Hanford Geophysical Logging Project collected high-resolution spectral gamma data from more than 750 drywells and prepared a baseline data set of subsurface gamma contamination for the 12 SST tank farms. Therefore, gamma logging in drywells represents a defacto baseline leak detection technology against which any proposed technology must be evaluated.	This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.E.1.h.ii] Permittees will include dry well logging data in the Hanford Facility Operating Record, SST System file. A summary listing of logging data, including the tank farm or wells logged and dates of logging, must be sent to Ecology annually. This condition applies specifically to gamma logging in drywells [V.4.E.1.h.ii e)], but in recent years, there has been a tendency to replace gamma logging with neutron moisture logging, under the assumption that any significant leak would be accompanied by detectable increases in vadose zone moisture content. Unfortunately, increases in moisture content are not unequivocal indications of a leak, and instances are known where changes in subsurface gamma activity have been observed in the absence of detectable changes in moisture. It is recommended that "gamma logging" be substituted for "logging" in the permit condition. The importance of moisture logging in assessing subsurface conditions is recognized. A logging system capable of simultaneous measurement of gamma activity and moisture content would provide both data sets with no additional effort. Such a logging system has been developed for use in tank farm drywells, but has not been deployed. At a minimum, the annual listing of logging data should include a table listing all tank farms drywells, boreholes, and monitoring wells, and indicating their current status.	This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.E.2.a] Leak Detection Compliance Schedule Section V.4.E.2.a.i incorporates “Single Shell Tank Leak Detection and Monitoring Functions and Requirements” (RPP-9937) into the Permit by reference. The section states that RPP-9937 will serve as leak detection requirements for two years, at which time the incorporation will expire, unless RPP-9937 has been updated. Section V.4.E.2.a.ii stipulates that requirements in V.4.E.2.b through V.4.E.2.f will take effect if RPP-9937 is not updated within two years. Section V.4.E.2.a.iii states that any updated version of RPP-9937 will supersede the requirements in V.4.E.2.b through V.4.E.2.f Sections V.4.E.2.a.i through V.4.E.2.a.iii defer to requirements and practices developed by the Tank Farms Contractor. Effectively, the requirements set forth in V.4.E.2.b through V.4.E.2 are deferred for at least two years and are unlikely to be implemented at all. Moreover, RPP-9937 only addresses in-tank monitoring. There is no mention of any vadose zone monitoring: both drywell logging and resistivity methods are ignored. We recommend the following: • Sections V.4.E.2.a.i through V.4.E.2.a.iii should be deleted. • Sections V.4.E.2.b through V.4.E.2.F should be implemented at the effective date of the Permit. • The permit should incorporate RPP-9937, but require that the document be revised and updated within 90 days, and that it specifically address vadose zone monitoring. • Revisions of RPP-9937 should be subject to review and approval by Ecology before they are incorporated into the permit As discussed elsewhere, we feel that the nature and extent of contamination in the vadose zone has been ignored for too long. • Routine vadose zone monitoring is generally ignored in favor of operational or retrieval activities, since this is the focus of TPA milestones and contractor incentives.	This section will be modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
		• In-tank data indicate that a significant number of single shell tanks may have experienced intrusions. The fact that there may have been a net increase in liquid level does not exclude the possibility of a leak. A credible leak detection and monitoring program must therefore include both in-tank and ex-tank components. • Approximately 280 (one third) of the tank farm drywells have not been logged at all since the vadose zone baseline was completed between 1995 and 2001. About 160 additional dry wells were logged between 2001 and 2002, but not since. Therefore, the most recent data in over half the tank farm drywells are already at least 10 years old. • Contaminated soil is a very important SST component and should be meaningfully characterized and monitored to reduce the potential for long-term groundwater contamination.	
Rick McCain	SST	[V.4.E.2.c.ii] Liquid monitoring for the purposes of determining changes in liquid volume will be performed for all SSTs prior to tank waste retrieval, except for tanks in which in-tank liquid detection is not feasible (e.g., in tanks that contain no drainable interstitial liquid), pursuant to the following schedule and requirements. a) SSTs that have any amount of drainable liquid as identified in DOE document HNF EP-0182, Waste Tank Summary Report, Rev. 284, incorporated by reference, will be monitored at least quarterly for the determination of a change in liquid volume; We strongly recommend that drywells in the vicinity of any SST containing drainable liquid should be logged on a regular basis. Ideally, this would include both gamma and moisture logging.	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.E.2.c.iv] Ex-tank drywell logging for all SSTs will be performed and reported by March 30, 2016. Then additional logging will be completed at least every 10 years thereafter for all tanks using all available and usable drywells. Given that there are over 760 drywells in the 12 SST tank farms, this represents an aggressive, but "doable" schedule (a logging rate of approximately one drywell per day). Log data collected in this effort should be comparable to the SST baseline data collected and reported in the period from 1995 to 2001. Significant saving in schedule and budget can be achieved if the 1995-2001 baseline data and subsequent results are used to plan and prioritize future logging activities. For example, the Radionuclide Assessment System (RAS) was specifically designed to collect data for comparison against baseline data collected with the high-resolution spectral gamma logging system (SGLS). We therefore recommend that the permit condition be modified to include preparation of a logging plan, subject to approval by Ecology. The logging plan would include development of data quality objectives (DQO's) for drywell logging data, summarize available data for each drywell, assign priority for logging and provide recommendation for future logging activities. For example, drywells in which no significant contamination was detected by the SGLS in the 1995-2001 baseline could be logged with the RAS, whereas drywells with a history of contamination would be logged with the SGLS. The nature of the contamination and detection capability of each logging system must also be considered. For example, Co-60 is a gamma-emitting radionuclide present in fission product waste. Although not a significant contaminant, it is known to be relatively mobile, and can serve as a tracer or surrogate for other contaminants such as Tc-99, which are much more difficult to detect in the vadose zone. It has prominent gamma rays which make it easily detectable with high-resolution spectral gamma logging system. Unfortunately, it generally occurs at relatively low activity, and its short half life (5.27 years) means that it quickly decays below detectable levels. Therefore, drywells in which Co-60 has been detected should be given priority for future logging with the SGLS. Drywells in which Co-60 exhibits movement should be logged on a more frequent basis. The Permit requirements for groundwater sampling in V.4.C.1.b.ii state: "For the sole	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment.

Commenter	Unit Group	Comment	Comment Response
		purpose of monitoring plume movement, tritium, chromium, cobalt-60, Tc-99 and iodine-129 must be sampled and analyzed as characteristic tracers." Monitoring plume movement of Co-60 in the vadose zone before it reaches groundwater would also be effective.	
Rick McCain	SST	[V.4.F.3.a.iii] The Leak Detection Monitoring and Mitigation Plan must describe utilization of both ex-tank and in-tank leak detection methods, as well as any other methods that may be approved by Ecology on a case by case basis. a) For the primary ex-tank leak detection methods, the current best available technologies are: High Resolution Resistivity (HRR) and dry well logging; As noted above [V.4.E.1.h.i], drywell logging has been used for more than 50 years and thus represents a defacto standard against which other methods must be compared. It is acknowledged that HRR may offer more timely detection and may interrogate a greater subsurface volume, relative to drywell gamma logs, but the presence of 50+ years of data in many SST drywells argues that drywell gamma logging data can be used to evaluate contaminant migration patterns during the time frame when the SST system was "operational" and to identify regions where migration may be continuing. It should also be noted that HRR and drywell gamma logging measure two fundamentally different parameters. Discrepancies are known to exist between results from the two systems, and these must be investigated and resolved. In general, a combination of both methods should be employed to provide the most effective leak detection.	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment. This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	[V.4.F.3.c] Ex-Tank Leak Detection with Dry Well Monitoring [V.4.F.3.c.i] Requirements for dry well logging prior to initiation of retrieval: a) In order to provide baseline soil moisture information, gamma scans and moisture scans must be obtained for each dry well listed in a TWRWP prior to initiation of retrieval operations in a tank. In the interest of consistency and proper usage, we recommend that the terms “gamma logs” and “moisture logs” be substituted for “gamma scans” and “moisture scans”. The most appropriate gamma detection system shall be used based on the expected radionuclides determined from process information and historical logs and the respective minimum detection levels. Also, it is suggested that a specific timeframe be included in this requirement. i.e., “Gamma and moisture logs must be obtained for each dry well listed in the TWRWP one month prior to initiation of retrieval operations in a tank.” Otherwise it is open to interpretation as to how old the pre-retrieval dry well log data can be. b) Should a prior-to-retrieval gamma scan show an unexpected presence of radioactivity in the soil adjacent to any of the dry wells listed in a TWRWP, and the unexpected reading is confirmed, the tank leak assessment process in procedure TFC-ENG CHEM-D-42 Tank Leak Assessment Process, Rev. B-4 (CH2M Hill, 2008) must be implemented. c) Retrieval activities cannot commence until the unexpected reading has been evaluated and is shown to not alter the leak status for the tank whose waste was to be retrieved.	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment. This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	V.4.F.3.c.ii Requirements for dry well logging during retrieval: a) After retrieval operations have been initiated, dry well logging will only be performed as a backup leak detection method if the HRR system becomes inoperable. Drywell logging should be performed as a routine part of retrieval operations. As noted above, HRR and drywell logging measure fundamentally different parameters. If drywell logging is performed only as a backup when HRR is inoperable, there is a risk that discrepancies between the two data sets may be interpreted as an indication of a leak. b) When dry well logging is employed as a backup leak detection method, it shall be performed to monitor specific region(s) of interest for increases in soil moisture (or gamma) content. These may include the interval from above the existing waste surface to below the base of the tank, and the depth interval to log. Depth intervals for drywell monitoring should be selected on a case-by-case basis and should bracket any known intervals of borehole contamination. At a minimum the drywell interval to be monitored should extend at least 20 ft below the base of the tank. c) Should dry well moisture logging be initiated for leak detection due to inoperable HRR monitoring during waste retrieval, the prior-to-retrieval moisture logging will be used as a baseline for comparison. This is reasonable, since HRR responds primarily to soil moisture. However [V.4.F.3.c.ii e)] requires that any significant increase in moisture detected from the moisture log is subject to “confirmation” by gamma logging. We also suggest that any potential leak detected by HRR be subject to investigation by gamma and moisture logging. d) Ecology must be informed within seventy-two (72) hours of discovery of any missed required dry well monitoring (missed intervals or entire dry well).	This section has been modified. Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment. This section was modified for the new permit draft and is superseded by Addendum J-1, SST Leak Response Plan.

Commenter	Unit Group	Comment	Comment Response
		Any measurements deemed to be erroneous will require repeat logging within 72 hours to determine appropriate action. Ecology must also be informed of any evidence of tool malfunction. e) In the event that moisture logging demonstrates significant increases in soil moisture levels, a gamma scan must be performed within seven (7) days as a follow-up to determine if the moisture increase is due to a tank waste leak. If unable to perform gamma scans within seven (7) days, Ecology will be informed. The term “gamma scan” should be changes to “gamma log” for consistency. The provision that gamma logs be performed to “confirm” anomalies detected by moisture logging implicitly recognizes that moisture data by itself is not an unequivocal indication of a leak. This reasoning would also imply that any anomaly detected by the HRR be subject to gamma logging. Note that the Retrieval Monitoring System (RMS) was specifically developed for drywell monitoring during retrieval activity. This system had multiple gamma detectors and a neutron moisture detector to obtain both gamma logs and moisture logs in a single log run. It has not been deployed. f) If there is an unexplained increase in soil moisture content observed during moisture logging and access is not practicable for any gamma monitoring system, Ecology must be informed within seventy-two (72) hours of confirmation of the increase in soil moisture content, and the Permittees must propose an alternate means of investigation for Ecology approval. Handheld gamma detection systems comparable to the handheld moisture system are commercially available. Although not currently deployed at the Hanford Site, these systems make it possible to collect gamma activity data in any borehole accessible for moisture measurements. Ecology should require that gamma activity measurements be made in any drywell where unexplained increases in soil moisture are observed.	

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	V.4.F.3.c.iii Requirements for post-retrieval dry well loggings: a) Gamma scans must be obtained for each dry well listed in a TWRWP no sooner than three months, but no later than six months, following the completion of waste retrieval from any tank subject to the TWRWP. Change “gamma scans” to “gamma logs”. Anomalous conditions require implementation of “TFC-ENG-CHEM-D-42, Tank Leak Assessment Process.” Logging requirements are described in the section below and include moisture logging. A timeframe for moisture logging should be called out in this section as well.	Changed all occurrences of "gamma scan" to "gamma log" or "logs".

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	V.4.F.3.c.iv The dry well logging will be performed to meet the following requirements: a) All dry well loggings will be obtained for the entire dry well column from near the ground surface to near the bottom of each dry well. In many cases, it may make sense to conduct logging over limited intervals. This would be established in an approved monitoring plan. b) Gamma logging may be performed with the radionuclide assessment system (RAS truck), the radionuclide monitoring system (RMS), or the spectral gamma logging system (SGLS). c) Moisture logging will be performed with hand-held moisture probes or any of the vehicle mounted systems. In general, logging systems (SGLS/NMLS or small diameter neutron logging) should be required The small diameter systems are very compact and do not have to be mounted in a vehicle. Logging systems are preferable to the handheld moisture probe currently in use because they collect and store data electronically as a function of depth, whereas the handheld moisture probe requires that panel readings be manually recorded for each data point. This slows down analysis (data has to be extracted from the field data sheets and manually entered), and increases the possibility of transcription errors. (mis-recording data in the field or mis-reading in data entry for analysis). Transcription and depth errors can cause unnecessary re-logging to reconcile false anomalies. d) Logging equipment will be calibrated annually or anytime when there is any indication of an erroneous result that indicates recalibration is warranted. This is consistent with current methodology.	Addenda D, Groundwater Monitoring Plans have been written for every WMA and satisfies this comment.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	V.4.F.3.c.v The logging systems will be deployed by qualified personnel in accordance with the applicable procedures for that equipment. Established methods must be followed when conducting dry well logging. Dry well logging data must be reviewed, processed, and interpreted by qualified personnel. The Hanford Geophysical Logging Project has been involved in drywell logging since 1995. We have developed the equipment, methodology and experience to deal with Hanford Drywell logging conditions. It is also noted that there are ASTM procedures for gamma and moisture logging: ASTM, 2004; Standard Guide for Conducting Borehole Geophysical Logging - Gamma; Designation D-6274 - 98 (Reapproved 2004); American Society for Testing And Materials, West Conshohocken, PA ASTM, 2007; Standard Guide for Conducting Borehole Geophysical Logging - Neutron; Designation D-6727 - 01 (Reapproved 2007); American Society for Testing And Materials, West Conshohocken, PA	Addendum G, Training Plan, details requirements for personnel. The permit condition number was changed to V.4.J.9.e.

Commenter	Unit Group	Comment	Comment Response
Rick McCain	SST	General Discussion Regarding SST Drywell Logging Requirements All parties recognize that significant quantities of dangerous radioactive mixed waste will remain in the single shell tank (SST) system for an indefinite period while treatment capability is developed. Throughout their history, the SSTs have been managed by contractors to the Atomic Energy Commission (AEC) and successor agency, the Department of Energy (DOE). Contractor incentives have always focused on operational requirements. When Hanford was actively producing plutonium, the primary focus was on maintaining sufficient waste disposal capacity to support processing operations. Today the primary Hanford mission is environmental cleanup, and the focus in tank farms is on retrieval of waste from the SSTs for eventual treatment and disposal. In both cases, monitoring is a secondary priority. There has always been a conflict of interest because monitoring activities may interfere with milestones and incentives stated in terms of operational goals. Discovery of a new leak or evidence of continued migration in an existing plume may result in a less favorable classification of a tank, and/or suspension of operations. Either of these events may result in escalating costs, schedule delays, or loss of award fees. For most underground tank systems, engineering practice and regulatory requirements depend on a combination of in-tank measurement and groundwater monitoring for environmental protection. In-tank measurement of liquid levels and inventory control provides estimates of credible leak volumes, and contaminant levels in groundwater monitoring wells are measured to assess regulatory compliance. For tank systems where groundwater is relatively shallow, this is a reasonable arrangement: contaminants escaping from the tank will reach groundwater quickly. However, where groundwater is deep, the vadose zone constitutes both a pathway and reservoir for contaminants escaping the tank. Contaminants may not be detected in monitoring wells for years or even decades after the leak event, and residual contamination in the deep vadose zone may continue to drain into groundwater long after the tank and shallow contamination have been remediated. Internal monitoring of liquid levels and waste balances are clearly important for early leak detection in the SSTs, but these systems are subject to errors related to measurement in a	Ecology worked with the Permittees on the requirements for Groundwater Monitoring for those unit groups that require Groundwater Monitoring Plans under WAC 173-303-645. In addition, II.F permit conditions, "Groundwater and Vadose Zone Monitoring and Corrective Action for Regulated Units" and Attachment 8, "Inspection and Training Plan for Groundwater Monitoring Wells" provide regulatory requirements for groundwater on the Hanford Site. The most current information is provided in Addendum D, "Groundwater Monitoring Plan" for applicable unit groups. For the Single Shell Tanks, Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include drywell logging information. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions. The waste in "assumed" leaking tanks has either been removed or are at the top of the list to be removed.

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		hostile and inaccessible environment, equipment failures related to corrosion and/or solids deposition on monitoring devices, evaporation, and intrusion, as well as errors in transfer volumes during waste disposal and/or retrieval activities. Over time, errors can accumulate and mask a significant leak. In addition, most single shell tanks do not currently have free-standing liquid, so that liquid levels cannot be easily monitored. Finally, in-tank monitoring does little to account for leaks in ancillary facilities such as pipelines. Groundwater monitoring can only detect contaminants that have reached groundwater and traveled to monitoring wells, generally located at the periphery of the tank farm. The twelve single shell tank farms are located in the central plateau area of the Hanford Site, where depth to groundwater is on the order of 250 to 300 ft, or about 200 to 250 feet below the base of the tanks. By the time a contaminant is detected in the groundwater, there is likely to be an extensive contamination plume in the vadose zone that will be extremely difficult to remediate, and that will continue to affect groundwater for years, even after the source of the contamination has been eliminated. As of November 30, 2011, the single shell tanks (SSTs) contained 27,510,000 gallons of mixed waste (HNF-EP-0182, Waste Tank Summary Report, Rev. 284). Some waste has leaked from the SST System or has been discharged in an unplanned manner. The estimated volume of leaked waste from the SSTs is approximately 3.8 million liters (1 million gallons), which suggests that extensive subsurface contaminant plumes exist in the vicinity of the SSTs. This is confirmed by available drywell data. For most single shell tanks, “pumpable liquid” has been removed and the tanks are considered “stabilized”. Much of the remaining waste is characterized as saltcake or sludge. However, the same report (HNF-0182, rev 284) also lists “drainable liquid remaining” in the tanks. The total is approximately 10 million liters (2.7 million gallons). The amount in individual tanks varies from zero to a maximum of about 340,000 liters (90,000 gallons) in tank A-103, (which is designated as an “assumed leaker”). Approximately 35% of the drainable liquid resides in tanks designated as assumed leakers. The volume of drainable liquid remaining in tanks designated as “assumed leakers” is roughly equivalent to the acknowledged leak volume, and	

Commenter	Unit Group	Comment	Comment Response
		additional drainable liquid (roughly equivalent to about twice the acknowledged leak volume) remains in SSTs designated as “sound”. All SSTs are well past their design lifetime. Therefore, continued loss of liquid through existing leaks, or development of new leaks, cannot be ruled out. Much of the available data regarding the nature and extent of vadose zone contamination associated with the SST system comes from the baseline characterization effort conducted under the direction of the DOE Grand Junction Office, independent of the local DOE office or the tank farm contractor. High-resolution spectral gamma logging systems were developed and deployed. Between 1995 and 2001, all drywells in the single shell tank farms were logged at least once, and a comprehensive baseline of the nature and extent of gamma-emitting contamination in the vadose zone was developed. This baseline is documented in a series of 133 Tank Summary Data Reports (TSDRs) for each of the large (100-series) single shell tanks, and twelve tank farm reports, which present three-dimensional visualizations of subsurface contamination. Extrapolations of the visualizations indicate that an estimated volume of approximately 14 million cubic feet of soil in the vicinity of the SST system is contaminated with Cs-137. Other significant gamma-emitting contaminants include uranium, Co-60, Eu-154, and Sb-125. This estimate represents a lower bound, because many plumes extend below total depth of the drywells, and beyond the tank farm boundaries. Since the baseline was completed, responsibility for drywell logging and vadose zone characterization and monitoring has returned to the tank farm contractor. Milestones and incentives favor retrieval operations and little priority or resources are dedicated to drywell logging. Additional techniques such as electrical resistivity measurements have been implemented, and there have been limited investigations with direct push equipment with gamma and moisture logging. However, the emphasis has been on tank retrieval operations, and drywell logging activities have been mostly limited to tanks undergoing retrieval. This has consisted primarily of measurements made with a handheld neutron moisture gage developed for agricultural applications. Monitoring and logging activities are frequently deferred or delayed in favor of retrieval activities. Approximately 280 (one third) of the tank farm drywells have not been logged at all since the vadose zone baseline was	

Commenter	Unit Group	Comment	Comment Response
		completed between 1995 and 2001. About 160 additional dry wells were logged between 2001 and 2002, but not since. Therefore, the most recent data in over half the tank farm drywells are already more than 10 years old. Little gamma logging is performed. The retrieval monitoring system (RMS) was developed with multiple gamma detectors for a wide range of activity and the capability for simultaneous moisture measurement, but it was never deployed. In spite of the fact that logging vehicle access to many drywells is blocked by retrieval activities, no effort has been made to acquire a handheld gamma detection system, even though such systems are commercially available. Surface-based geophysical methods such as high resolution resistivity and electrical resistance tomography offer some opportunity to detect and track subsurface contamination, but these techniques are subject to interference from infrastructure, and their sensitivity and resolution decline with depth. Drywell logging remains the most effective way to detect and track gamma emitting contaminants and moisture anomalies in the deep vadose zone, where the steel casing required to maintain borehole integrity precludes electrical or electromagnetic methods. In terms of the overall cleanup of the SST system and environmental protection, little is accomplished if waste is removed from the SSTs but vadose zone contamination is exacerbated in the process. Extremely high levels of gamma activity are known to exist in the vadose zone in the vicinity of the tanks, and much of it has penetrated to the deep vadose zone, where remediation with surface-based methods will be difficult, if not impossible. High gamma activity associated with Cs-137 will persist for decades. Conventional excavation practices will result in significant radiation exposure to workers and the general public. “Landfill closure” of the SST system will be complicated by the presence of subsurface contamination. Understanding the nature and extent of this contamination and how it changes over time will be a critical factor in long-term acceptance of the landfill closure option. Drywell logging has been performed at the SSTs for more than 50 years. Early logs are available in the form of strip chart recordings, and must be digitized, but beginning in 1975, drywell logs were plotted by computer and the data are available as ASCII text files. This makes it possible to put together a	

Commenter	Unit Group	Comment	Comment Response
		picture of the development and progression of subsurface plumes over time in the vicinity of the SSTs.In the current funding environment, only “critical” or “necessary” activities are likely to receive attention or resources. The SST Permit identifies contaminated soil and contaminated groundwater as SST System components. The vadose zone represents a volume of contaminated soil and the pathway whereby contamination from the SST System will reach groundwater. Although it has historically been neglected, the extent of the vadose zone makes it a reservoir for contamination that may continue to impact groundwater for decades, or even centuries after the tanks and shallow contamination have been removed. If Ecology is serious about long-term cleanup and groundwater protection, it will be necessary to explicitly define drywell logging requirements (including key milestones and deliverables) and require that a vadose zone characterization and monitoring program is staffed and funded independently of retrieval operations.	

Commenter	Unit Group	Comment	Comment Response
Rob Kimmich	General	To whom it may concern, I join Heart of America Northwest to insist that the Nuclear Reservation in Hanford, Washington, NOT be used for a national nuclear waste dump. Instead, the wastes already at Hanford must be properly stored so they do not seep into the ground water.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013

Commenter	Unit Group	Comment	Comment Response
Robert Apple	General	Reasonably clear, that we have an historical trend to not comply with the overall site remediation plan as assigned operators and other personnel involved seek to change every step forward and even try to ignore or disregard growing contamination found spreading through air and water form the confines of the Hanford site with hollow claims of remediation that have really proven if anything a growing problem. Our State citizens have faced time and again failed time lines for a vitrification containment process for the sites radioactive waste that as a child was first heard of from State Senator Sam Guess while talking to my father in the latter 1960's and from an original funded plan process expected to be in operation by the late 1970's. Ever since and approximately 35 years of delays have a plan still being put off in to the distant future that will arrive if it dose then will arrive end of my expected life and honestly I am not optimistic as having known the past. Sure I am trying to correct the expressed record provide by WA Ecology regarding this process but even accepting the time line of having started in the 1980's well, all solutions for final containment are grossly overdue and the time delay is resulting in massive contamination that is proven and could have been avoided had, initial timelines been met. Do not have to tell officials of the long occurring radioactive belching of gas coming from liquid waste tanks and as a result of not only complicated but unsure chemical reactions as the experts have expressed. There should be no need to state that particular unlined trench land fill dumping occurring on site also has been found to have contained more volatile waste material that disclosed. Also do not have to express that the many single lined liquid storage tanks are leaking but now clear evidence indicates the recently thought secure double lined tanks for liquid wastes are now also starting to leak but should have come as no surprise as all on-site liquid waste storage tanks have reached there full life expectancy. Fact is, any business that cavalierly failed containment of such hazardous waste anywhere else would have not be allowed to continue any activity and that should be the direction to the Federal Government from, our State. The fact is real efforts at containment need to be more than quid-pro-quo trade-offs for, other authorizations of use on site and for some tertiary	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Double-shell tank 241-AY-102 has leaked waste from the primary tank into secondary containment. There has been no release of waste to the environment. Approximately 99% of the waste that was in tank 241-AY-102 has been retrieved and placed into other DSTs. Permit conditions in Rev 9A require monitoring of the remaining waste to ensure 241-AY-102 remains protective of human health and the environment until it can be remediated and closed.

Commenter	Unit Group	Comment	Comment Response
		efforts that claim costs expended that should be of no consequence when dealing with the polluter here who just happens to be the responsibility of our federal government and the mess as a direct result of that government entities allowed activities on this that also is, our Washington State site. Until it is stopped, we will clearly face the Federal Government's Hanford Nuclear Reservation site's unreasonable cover to its contractors at our States immediate, health and safety cost. Truly doubt that anyone will argue against the harmful residues of radioactive wastes on our environment or on us directly so in knowing that this is occurring regularly to on site workers and with known waste spreading beyond this site there is no reasonable alternative but to immediately demand from our Federal Government for complete cleanup and that made stable residue be removal form the site until, any further and of any kind is allowed. Thank you for this opportunity to comment and hope this time a hard standing rule is applied to meet the growing known risks to our environmental health and safety here.	The Rev 9A Permit for the Single Shell Tanks includes Addendum J, Continegency Plan (Building Emergency Plan) and Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leak is discovered. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Robert W. Apple	General	There should be no need to state that particular unlined trench land fill dumping occurring on site also has been found to have contained more volatile waste material that disclosed.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Robert W. Apple	SST	Also do not have to express that the many single lined liquid storage tanks are leaking but now clear evidence indicates the recently thought secure double lined tanks for liquid wastes are now also starting to leak but should have come as no surprise as all on-site liquid waste storage tanks have reached there full life expectancy. Fact is, any business that cavalierly failed containment of such hazardous waste anywhere else would have not be allowed to continue any activity and that should be the direction to the Federal Government from, our State.	You are correct that the Single Shell Tanks (SSTs) at Hanford have well surpassed their life expectancy and the Double Shell Tanks (DSTs) are nearing their life expectancy for storage. The goal of the SST Permit Chapter is to facilitate closure of the SSTs in a manner that will protect human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Robert W. Apple	SST	-- that the fed is able to handle vitrification in the south, it is in other parts of the country, or the world, excuse me. We're not able to get the plant built, up, and running here is a problem. I also am very concerned about the large amount of volume of waste on the site, very poorly contained, from liquids to solids, much of it needing to be treated through a vitrification plant, and I do not want to see any waste come into our state until that waste is all treated, completely vitrified, and removed from the state within, potentially, at best an equal mass coming in for that which is being removed. I do not want any permanent onsite storage at a future point, and I want it determined that the vitrification plant, when and if it's build and operating, will actually handle all the waste and take care of it. If it's not going to be built timely, the existing waste on the site needs to be properly maintained. That means new and double-walled containers for the liquids and removal of the old single-shell tanks and replacement or build other [where 1:15] on the site, double-lined tanks, or more, that would actually meet the conditions because presently, we're not meeting Washington State requirements for such hazardous waste.	The Vitrification plant has started the low-level waste plant and are currently turning waste from the Double-Shell Tanks into glass and has started shipping containers of this glass out of state. The waste in "assumed" leaking Single-Shell tanks have either been removed or are at the top of the list to be removed. Waste will continue to be removed from the Single-Shell Tanks, to the Double-Shell Tanks, and to the Vitrification Plant until all waste is removed from all tank farms.
Robert W. Apple	General	Landfills, I'm very concerned about liners because they're not going to last the life of this waste and there's a lot to be considered, so I'll leave it at that.	There are many other engineered designs and technologies that provide protection of human health and the environment above and beyond the use of liners (i.e. concrete barriers, evapotransportive covers, stabilization and etc.)

Commenter	Unit Group	Comment	Comment Response
Robert W. Batty	SST	In our opinion it is premature to issue a SST permit for the reason discussed in the 2nd paragraph below. In addition, we think Washington Ecology should give serious consideration to imposing added conditions for any permit issued for the SSTs. As you are undoubtedly aware, DOE has still not issued its final Environmental Impact Statement (EIS) on Tank Closure and Waste Management for the Hanford site. That issuance has been delayed numerous times and is now scheduled for December of 2012 with the resulting Record of Decision (ROD) date uncertain. Our organization and many others provided comment letters on the draft EIS which we now understand will not be responded to until the final EIS is released. It seems very premature to issue a 1 0-year SST permit before the EIS is released and your department's staff can assess its impact on SST considerations. It seems obvious to us that delaying the issuance of the SST permit until the final EIS is released and reviewed is in everyone's best interest. Our comments on the DOE EIS included a "risk management" suggestion that new Double Shell Tanks (DSTs) be included requiring DOE to build new DSTs to the extent needed to transfer waste from failed SSTs. We think you should impose that as a condition of the new SST permit. I am sure you are aware that DOE recently notified the Washington Attorney General that DOE believes there is a serious risk that DOE may be unable to meet one or more of its required schedules under the consent decree in the State of Washington vs. DOE lawsuit. DOE classified this risk as "red" in its letter to the Washington AG indicating that a high risk of changing the performance baseline exists. Delay creates added risk that SSTs will fail before the Vitrification Plant can process enough waste in time to avoid serious environmental damage. The DST requirement will address that risk.	Ecology provided a SEPA determination for Rev. 9 in 2012. SSTs received a Determination of Significance and Adoption of the TWRS EIS for the Rev. 9 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal. The Single Shell Tanks (SSTs) are a closure unit. The tanks will be emptied and the waste will be treated and disposed of in a manner that is protective of human health and the environment.

Commenter	Unit Group	Comment	Comment Response
Ross Tewksbury	General	I think the permit needs to be as stringent as possible and err on the side of being more strict because if it errors on the other side of being too lenient, then it really opens it up to many huge problems. I'm against more wastes coming in to Hanford because we already can't deal with the waste that's already been there and as the Columbia River's being contaminated already, and I think the permit must cover the whole of the groundwater situation and not just be kind of -- and cover the whole ecology of the whole area there and not just one area at a time or one landfill or one tank at a time because it all has a cumulative effect. And if there's one place where that's evident, it's definitely at Hanford, you know? Because the waste there is already on overload there and there's certainly not any room for more. I think that the 40 miles of trenches need to be monitored and need to be investigated to find out exactly what is there. As far as transporting this radioactive waste around goes, on the way over here, just tonight, I was sitting in traffic and how -- these people that keep promoting this transporting waste, how would they feel if their family was sitting next to one of those radioactive trucks for half an hour or an hour sitting in traffic? They don't think of things like that. They always think it's somebody else's problem or something. I mean, I've seen those trucks before when I've been driving around different states and sometimes you see them parked at restaurants. Well, what if you were parked next to the one at the restaurant? So, there's a lot of these things that just people don't seem to deal with and with a lot of these proposals coming up from different things at the same time, I was just thinking that in this transpiration area, the perfect storm would be an accident with a coal train coming from Montana or Wyoming with a truck carrying radioactive waste to Hanford, and that would just combine all the stuff into one horrible thing. And that's what kind of thing I'm here to try to avoid.	Transportation of off-site radioactive waste to Hanford is outside the scope of the Permit. The Permit is limited to the treatment, storage and disposal of dangerous and mixed radioactive waste at Hanford. The U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC) share primary responsibility for establishing and enforcing requirements for the safe transport of radioactive materials in the United States. All shipments of radioactive material must comply with the DOT requirements, and all vehicles transporting radioactive waste are inspected by the Washington State Patrol. The DOT regulations set the standards to package, transport, and handle radioactive materials, including labeling, shipping papers, signage, loading, and unloading requirements. For example, trucks are tracked by satellite, and follow procedures which prevent travel during bad weather or poor road conditions. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.

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Roxie Gittings	General	I grew up in Pasco, nine years, 4th grade through high school, downwinder. Of course, I've not read that entire to me of the proposed permit. We keep asking our collective selves how can we best control radioactivity, hazardous waste, and the mixture of the two? We still create more and more of these wastes all over the country, and we still keep saying it's okay to make more and more. As a state, we passed a law that asked ourselves not to add waste to the pile, no pun intended. We must clean up our mess before we add more. So, I say no permission should be granted to bring any more waste to the Hanford site of any type, ever. Just moving the waste around on the site is trying to get as under control seems to have eluded us for over 60 years that I can remember so far. It's still escaping us into the soil, in our underground water, and into our Columbia River. Even if we should create a concrete cap over the entire 586 miles of Hanford, square miles, the site problems would not go away. So, we should not have any caps on this waste until -- whether in tanks or in the ground that has not been properly characterized, treated, and secured then prepared to monitor it for 100,000 years, at which point living things might be able to safely get near it. So, I didn't talk about the things that I really have on my mind; one is, who to vote for for governor. About 30 miles of natural gas line that's going to be buried out there on that Hanford reservation. Monstrous sewage sites. Promises made to foreign nations using experimental reactors using our presented fuel. Buried radioactive trains, and I could go on and on.	Ecology's priority and mission is to protect human health and the environment. We worked with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013. Since the release of the Draft Rev 9 Permit the proposal to install a natural gas line on the Hanford Site was cancelled. Ecology and USDOE are committed to clean up the Hanford Site and not introduce new waste, but will add new facilities to help clean up the legacy waste on site.

Commenter	Unit Group	Comment	Comment Response
Roz Glasser	SST	I am shocked to hear of the plan to move many of the 30,000 truckloads of radioactive waste with little or no protection for groundwater going into the Columbia River at Hanford . So long as existing wastes - without adding even more - are projected to contaminate groundwater flowing to the Columbia River, the existing permit should bar any more new offsite waste from being disposed at Hanford in the new landfills USDOE proposes to build for offsite waste. The Federal permit must include a condition barring offsite wastes from any new landfills. It must also require analysis of what is in the 40 miles of disposal trenches, and require removal and treatment of wastes. The same should apply to the contamination from a million gallons of leaks from High-Level Nuclear Waste tanks. The proposed permit is a dangerous affront to all of us in allowing USDOE to just proceed with plans to "cover-up, not clean-up" by putting dirt caps on top of the tanks and trenches and walking away. The permit doesn't even require proper monitoring to warn us when the wastes inevitably spread towards groundwater, which flows to the Columbia. Washington State must use its state hazardous waste permit authority to bar USDOE from adding more waste. Failure to do so would cause the disastrous risk of adding nearly as much radiation to Hanford's soil as is in all the High-Level Nuclear Waste tanks which we are struggling to have the Energy Department remove. Further, since a large portion of the 30,000 truckloads of radioactive wastes will go through downtown Portland and Spokane, precautions must be made to keep the radiation from this high level waste completely contained in the casks on the trucks. Loads should be reduced if needed to meet this goal. As a cancer patient, I strongly urge you to ensure that this waste is moved and stored safely for the sake of people and the environment.	According to Appendix H, Attachment 1 of the Tri-Party Agreement (TPA), the closure of the Single Shell Tanks (SSTs) includes a 99% retrieval goal for tank wastes. After retrieval is completed, the residual volume and constituents will be included in additional evaluations as part of the closure process outlined in TPA Appendix I. These evaluations will inform decisions about further closure activities. Closure of the SSTs will be completed in a way that is compliant with all applicable laws and protective of human health and the environment. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Russell Jim	General	General Over-arching SEPA determination comments: Associated with the Permit are SEPA determinations for the specific units and an over-arching determination. Comments on these are attached and/or included in our comments on the draft Hanford Facility permit. SEPA determinations: 1. Ecology has also chosen to implement a “Phase Review” despite the fact	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated SEPA Determination in accordance with WAC 197-11. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit.

Commenter	Unit Group	Comment	Comment Response
		that SEPA checklists were or should have been submitted with the Part B Applications. If they were not then Ecology is not in compliance with WAC 173-303 in accepting the Application as complete. The SEPA regulations at WAC 197-11-060 specifically say that phased review can't be used if it would split up units and allow an agency to ignore the cumulative impacts of the units. 2. Ecology made an over-arching determination of non-significance (DNS). Ecology has no authority to make a DNS until it is known what all the Hanford Site mitigation plans will be. 3. At the very minimum, a determination of mitigated significance (MDNS) should have been the over-arching SEPA determination for the Hanford Facility based on the unit-specific SEPA determinations which indicated impacts or the need to mitigate impacts. Given these facts, even a MDNS has several concerns: a. This determination assumes units, such as the SST unit, can be completely mitigated so there is no environmental impact during the closure process, but the permit applicants have provided no such evidence. b. Any mitigation plans would have no EIS to confirm the extent or nature of the damage they claim to address without defensible justification. c. A mitigated determination can be slightly deceptive: it assumes that once a permit is in place, there is no environmental impact, while at the same time it does not require mitigation plans be implemented. d. Necessary mitigations within the unit-specific Permits should be included as required compliance conditions (Note: these mitigations are not evident in most permits). e. Permit condition requirements for cultural and biological reports are not SEPA compliant. When the SEPA checklists were submitted with the permit applications, this already should have been a part of the information provided. If not, Ecology should have indicated so in their decision and issued a MDNS. Ecology should delete these permit conditions and revise its SEPA determination.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. The draft permit does not comply with this EPA directive. Furthermore, there is a general lack of clarity, rationale and logic presented in the document(s). No rationale or logic presented in either the overarching or unit-specific Fact Sheets or the unit-specific Permits to support Ecology's decision-making process. (e.g., Modified/Partial closure of an individual unit is not authorized under WAC 173-303- regulations [see 1325-N]. More examples: Introduction page 6; Reorganization of tank farms reorganized into 7 WMAs is not clear.)	Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	General	2. Use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303-610]. The unit descriptions imply closure actions to be done under a CERCLA work plan authority rather than the RCRA permit. Workplans do not fall under the WAC 173-303-830/840 modification/review process. Corrective Action decisions (should this approach continue) have their own comment periods and are outside the Dangerous Waste regulatory process. Additionally, Tribal or public comment or right of challenge are not subject to the same rights as under the Dangerous Waste process. See YN ERWM comment letter on the II.Y condition and changes to the TPA (2010).	In order to meet the state's regulatory requirements for corrective action (WAC 173-303-64620), the cleanup action that is under CERCLA authority must meet all applicable, relevant and appropriate requirements (ARARs) stated in the CERCLA Record of Decision. These requirements include that the final action cleanup must not exceed the State's total risk of 1 x 10-5 and hazardous Index (HI) = 1 (WAC 173-340). If Ecology concludes that the ROD can't meet the requirements, then Ecology may impose corrective action requirements through the permit modification process (permit condition II.Y.2.a.iii). DOE may appeal the state's application of permit requirements in addition to the ROD requirements. For closure, the closure performance standard is established in the closure plan. These will typically also be the total risk of 1 x 10-5 and hazardous Index (HI) = 1 for clean closure. The state does have the option of establishing alternative requirements however, certain threshold criteria have to be met in order to use alternative requirements. Further, the alternative requirements must be established in an enforceable document. The state would not yield authority to either the EPA nor to DOE for closure using alternative requirements, given that the requirements would be established in an enforceable document.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	3. Use of past-practice authority has not proven to be the most efficient way to remediate groundwater plumes of mixed waste from a combination of past-practice treatment, storage, and disposal units. Ecology's earlier "coordination" of corrective action at 300 APT with CERCLA remedial actions has not resulted in compliance with Dangerous Waste regulations –WAC 173-303-283, -610, -or -645 requirements to protect human health or the environment. More stringent facility cleanup standards should be applied. Ecology should implement groundwater monitoring plans compliant with WAC 173-303.	Groundwater Monitoring Plans were revised to be compliant with WAC 173-303-645. In addition, standard conditions II.F were updated in a Class 2 permit modification in the Hanford Site-wide Permit, Rev. 8C and are already incorporated into the permit.
Russell Jim	General	4. WAC 173-303-645-(1)(e) requires the director to determine that it is not necessary to apply the requirements of this section because the alternative requirements will protect human health and the environment. The required determination has not been made as there are no alternative requirements in place. Furthermore, it is inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645/646 corrective action permit while the remedy selected remains an unproven technology. Ecology should include WAC 173-303-610 and -645 requirements for soils and groundwater cleanup.	In order to meet the state's regulatory requirements for corrective action (WAC 173-303-64620), the cleanup action that is under CERCLA authority must meet all applicable, relevant and appropriate requirements (ARARs) stated in the CERCLA Record of Decision. These requirements include that the final action cleanup must not exceed the State's total risk of 1 x 10-5 and hazardous Index (HI) = 1 (WAC 173-340). If Ecology concludes that the ROD can't meet the requirements, then Ecology may impose corrective action requirements through the permit modification process (permit condition II.Y.2.a.iii). DOE may appeal the state's application of permit requirements in addition to the ROD requirements. For closure, the closure performance standard is established in the closure plan. These will typically also be the total risk of 1 x 10-5 and hazardous Index (HI) = 1 for clean closure. The state does have the option of establishing alternative requirements however, certain threshold criteria have to be met in order to use alternative requirements. Further, the alternative requirements must be established in an enforceable document. The state would not yield authority to either the EPA nor to DOE for closure using alternative requirements, given that the requirements would be established in an enforceable document.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	5. Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	Ecology has reviewed extensively and approved final status Groundwater Monitoring Plans (GWMPs) for each unit group that requires GWMPs. These GWMPs have taken into consideration comments from the previous draft renewal, review comment record comments, and live workshops with permittees to form plans that adequately address groundwater concerns found in 173-303 and 173-340. Addendum B, Waste Analysis Plans have been written for operating unit groups that do not require GWMPs yet.
Russell Jim	General	6. Permits use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610(3) requirements; this approach is the prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements as these CERCLA documents don't yet exist. Ecology should include WAC 173-303-610(3) requirements.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	7. No Performance Standards are included in the permit as required by WAC 173-303-283. Ecology should revise Part II conditions and unit-specific permit condition(s) to include the following: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). However, use of Methods A and C to meet cleanup standards is in violation of previous commitments by DOE to unrestricted residential use along the River Corridor. Additionally the Hanford site does not meet the criteria for application of Method A; it has too complex waste streams to qualify. Ecology should include the following closure performance standards for contaminated soils to ensure compliance with the Dangerous Waste Regulations: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: a. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or b. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or c. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, *Closure and Post-closure*, and WAC 173-303-610(3) *Closure Plan; Amendment of Plan*, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, *Permit Changes.*

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	8. Permits lack conditions identifying required clean closure of, or excavation of near-surface soil and removal of any associated pipelines or structures (ancillary equipment) per WAC 173-303-283 performance standard requirements. Ecology should include requirements for RTD under WAC 173-303-630(10), -640(8), and -650(6).	The revised permit (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) *Closure plan; Amendment of Plan*, which requires a written closure plan. Any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, *Permit Changes*.
Russell Jim	General	9. The permits do not utilize the Closure Plans submitted in the Part B applications (2004). Ecology should utilize these closure plans and write appropriate Closure Permit conditions to rectify any non-compliance with unit specific closure requirements under WAC 173-303, and include these Closure Plans and/or Permit Conditions within the Permit(s) to ensure compliance with WAC 173-303-610. Ecology should ensure closure plans are consistent with unit-specific Dangerous Waste Regulations (e.g., WAC 173-303-650 Surface Impoundment regulations) as well as the rest of WAC 173-303.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	10. All Addenda identified as “reserved” must include the WAC 173-303 required information in order to be in compliance with the regulations and be included in their respective unit permit (e.g., Sampling and Analysis Plans). Ecology should include required information.	Within the Site-wide Permit, some of the unit groups do not require all the addenda for a complete application that complies with WAC 173-303 requirements. For example, the intact containment and secondary containment of hazardous waste at the Waste Treatment and Immobilization Plant Unit Group 10 prevent hazardous waste from interacting with groundwater so a Groundwater Monitoring Plan is not required for this unit.
Russell Jim	General	11. All Addenda included in the permit should include the unit specific information, not merely reference a document (e.g., Training Plans are located in the unit-specific file rather than the permit, possibly confusing to the permittee. Definitely confusing to the public). Ecology should include these types of documents as attachments to their respective Permit Addendum.	Within the Site-wide Permit, some of the unit groups do not require all the addenda for a complete application that complies with WAC 173-303 requirements. For example, the intact containment and secondary containment of hazardous waste at the Waste Treatment and Immobilization Plant Unit Group 10 prevent hazardous waste from interacting with groundwater so a Groundwater Monitoring Plan is not required for this unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	12. Permits do not include Ecology approved and Dangerous Waste WAC 173-303 compliant RCRA Groundwater Monitoring Plans as attachments to unit specific Permits within their Closure Plan Addenda. Groundwater monitoring plans are not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). The permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. Ecology should include these requirements to ensure compliance with Dangerous Waste regulations – WAC 173-303.	Ecology has reviewed extensively and approved final status Addenda D, "Groundwater Monitoring Plans," (GWMPs) for each unit group that requires the addenda. These GWMPs have taken into consideration comments from the previous draft renewal, discussions and comment resolution with the Permittees to draft GWMPs that adequately address groundwater concerns found in WAC-173-303 and WAC-173-303-340. Addendum B, "Waste Analysis Plans," have been written for operating unit groups that do not require GWMPs yet..
Russell Jim	General	13. Some Permit conditions include incorrect use of waivers [variances] to closure regulations (WAC 173-303-610(4)(b). Ecology should delete this waiver language.	The supporting documentation was submitted certified and by formal letter to Ecology for those unit groups that received requests for waivers or exemptions. The full list of unit groups that requested waivers or exemptions is included in the technical Fact Sheet for the Hanford Site-wide Permit, Rev. 9A. All information provided on the waivers is either included in the permit or is on file in Ecology's Administrative Record.
Russell Jim	General	14. Modified/Partial closure of an individual unit is not authorized under WAC 173-303 regulations and is included as an option in permit closure [see 1325-N). Ecology should delete this language and update the Permit to reflect compliance with WAC 173-303-610(3) and other WAC 173-303 requirements.	Some units may contain wording referring to partial closure. For example, there are Single-Shell Tanks that are considered partially closed, because the waste has been retrieved and it has been removed from the SST system. This puts them in a safe configuration until full closure can be completed.
Russell Jim	General	15. All unit-specific groundwater monitoring plans should be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies. Ecology should include this as a requirement in all Permits.	All unit specific groundwater monitoring plans are consistent with the Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	16. Permits' Contaminant of Concern (COC) lists do not encompass the full range of contaminants. Ecology should include, in each unit-specific Permit, the full list of COCs as noted or identified in associated draft RI/FS documents previously submitted to Ecology (e.g., Part V Permit unit-specific permits do not include COCs from earlier submitted RI/FS done to support submittal of Closure Plans: see DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7).	Addenda D, "Groundwater Monitoring Plans," contains the approved groundwater monitoring plans for all regulated units in the permit in the unit-specific chapters. All dangerous waste constituents, their concentration limits, points of compliance, and general groundwater monitoring requirements are contained as permit conditions or in the groundwater monitoring plans. In the standard permit conditions, there are requirements for groundwater monitoring in II.F.
Russell Jim	General	17. Permit conditions do not require use of a methods-based approach in the unit-specific Sampling and Analysis Plans. Nor is use of non-filtered sampling in the Sampling and Analysis Plans required. Ecology should include requirements for these in unit-specific Permit conditions (or include a Part II condition applicable to all units) to ensure compliance with WAC 173-303 regulations.	We agree. Ecology developed Waste Analysis Plan guidance that requires development of Sampling and Analysis Plans. Permit Conditions II.D reinforce the requirements within the Waste Analysis Plan guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.
Russell Jim	General	18. Permit conditions do not require repairs and replacement of wells per WAC 173-160. Ecology should include Permit condition(s) to require compliance with these requirements.	Permit Condition II.F.5, "Well Inspection and Maintenance" includes requirements for the evaluation and replacement of wells. Additionally, Attachment 8 of the Hanford Site-wide Permit, Rev. 9A includes requirements for the Inspection and Training for Groundwater Monitoring Wells.
Russell Jim	General	19. Permit conditions do not require coordination and incorporation of RCRA inspection requirements for the unit-specific permits with those for the associated CERCLA groundwater operable unit's. Inspection should at a minimum, be on a semi-annual basis. Ecology should include permit conditions to require coordination of inspections for unit-specific permits with those for the associated CERCLA groundwater operable unit's requirement.	Inspection requirements for Groundwater Monitoring on the Hanford Site is included in Attachment 8, "Inspection and Training Plan for Groundwater Monitoring Wells." The attachment is an extension of the standard Part I and II Conditions and applies to all unit groups in the Hanford Site-wide Permit, Rev. 9A.
Russell Jim	General	20. Permit conditions do not ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b). Ecology should require this.	Ecology reviewed each Closure Plan against Closure Conceptual Agreement Package (CAP) guidance to ensure they met dangerous waste regulations and Ecology Permit Application Guidance requirements in 95-402. Within the Closure CAP Guidance, Ecology required that a schedule for closure of each dangerous waste management unit and final closure of the facility is included in the Unit Group Closure Plan.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	21. Statements are made in several permit conditions to the effect that the Permittee has made the determination that the unit cannot meet clean closure standards. This text should be deleted and rewritten to reflect that Ecology makes permitting decisions in accordance with WAC 173-303.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	22. The Permit does not include a list of other applicable laws or required permits, nor are there conditions which reflect how compliance of these will be achieved. Ecology should identify these in each permit.	Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	General	23. Ecology should evaluate and confirm that all information on these Part A forms is consistent with Washington State Dangerous Waste Permit Application; Part A Form and Instruction publication ECY 303-31 (6-2003) requirements as well as information presented in the SEPA checklists submitted with the Part B Permit application, the unit(s) specific draft Permit Conditions, and the draft factsheet(s) (e.g., the LLBG Part A form and the permit indicates in-trench treatment or placement of liquids within landfill; this is not allowed by the landfill regulations).	Ecology worked with USDOE from 2013 to 2026 to receive all certified updated Addenda A, "Part A Forms" and permit conditions to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and complete information in support of each unit group. This includes the 400 Area Waste Management Unit and the Low-Level Burial Grounds. Addendum A, "Part A Form" reflects waste volumes and the appropriate waste codes for the final status permit. In addition, permit conditions were written to assure waste management activities are conducted in accordance with the regulations.
Russell Jim	General	24. Ecology should review and revise Part V (Closing) Permits to ensure compliance with Land Disposal Restrictions (LDRs) – WAC 173-303-140.	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.
Russell Jim	General	25. Ecology should review and revise Part V (Closing) Permits to ensure that non-existent Part II conditions are not cited (e.g.1301-N).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	26. Radionuclides are not regulated under Dangerous Waste Regulations at WAC 173-303. Instead they are regulated under CERCLA regulations at 40 CFR 300. However, Ecology should ensure that anticipated remedial actions for radioactive constituents shall be consistent with the closure activities required under WAC 173-303 by including language as such in all Permit conditions.	Ecology continued to use the words “radioactive” and “radionuclides” in the draft Rev. 9A Permit renewal to accurately detail the wastes, monitoring or operations that are managed at the Hanford Site but will clarify in the permit text and in the fact sheet that Ecology does not regulate the radioactive component of mixed wastes.
Russell Jim	General	27. The basis for permit conditions is incorrectly stated as coming from CERCLA & TPA Milestone requirements rather than first identified as requirements under the Dangerous Waste regulations. It is very difficult to track permitting actions in referenced rather than attached/included documents. A matrix approach whereby the applicable sections of the CERCLA documents are directly included in the permit, rather than referenced, is more transparent and publicly accessible. Concerns regarding “double jeopardy” could be eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA Dangerous Waste WAC 173-303 permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be “duplication of efforts” as two separate documents are not necessary. Ecology should develop this matrix approach.	The U.S. Ecology requirements for Corrective Action are included in the Part II.Y Permit Conditions. U.S. Ecology.
Russell Jim	General	28. Permit lacks a Part II condition of the definition of the term “Critical Systems.” Ecology should include following definition: “Critical Systems, as applied to determining whether a Permit modification is required, means those specific portions of an operating unit group’s structure, or equipment, whose failure could lead to the release of dangerous waste into the environment, or systems which include processes which treat, transfer, store, or dispose of regulated wastes.” Changes to specific portions of a dangerous waste management TSD identified as a critical system are subject to the permit modification requirements of WAC 173-303-830.	The definition "Critical Systems" was not included in the Hanford Site-wide Permit, Rev. 9 Part I and II Conditions, "Definitions" portion. For the Hanford Site-wide Permit, Rev. 9A, the definition and permit conditions have been removed, but retained in the appropriate unit-specific definitions and permit conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	29. The permit lacks a Part II condition of the definition of the term “Ancillary Equipment.” Ecology should include following definition: “The term ‘ancillary equipment’ means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter or control the flow of dangerous waste from its point of generation to a storage or treatment tank(s), between dangerous waste storage and treatment tank(s) to a point of disposal on-site, or to a point of shipment for disposal off-site.”	Within the Part I and II Condition definitions, we have the following language, "Except with respect to those terms specifically defined below, all definitions contained in the HFFACO, May 1989, as amended, and in WAC 173-303-040 and other portions of Chapter 173-303 WAC are hereby incorporated, in their entirety, by reference into this Permit." The "Ancillary Equipment" definition is contained within WAC 173-303-040 and is hereby incorporated into the standard conditions.
Russell Jim	General	30. Ecology should include the 324 Building in the Permit. Due to the B-Cell leak which requires extensive cleanup, this unit should be included in the Permit at the very least as a Part IV Corrective Action Unit. See attached comment file for the 324-Building.	We agree. The 324 Building Closing Unit Group 31 is included in the Hanford Site-wide Permit, Rev. 9A.
Russell Jim	General	31. Ecology should include the U.S. Ecology Low-level Radioactive Waste (LLRW) landfill in the Permit. As the landowner the Permittee is an “owner” of the landfill and as such is ultimately responsible for its operation, which includes management of dangerous waste in both its past practice and TSD inventory.	The U.S. Ecology requirements for Corrective Action are included in the Part II.Y Permit Conditions. U.S. Ecology.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	32. Off-site wastes should not be permitted to be buried on the Hanford site until a cumulative Risk Assessment indicates there will be no exceedances of groundwater cleanup standards. Ecology should include Permit conditions indicating as such to ensure large volumes of waste do not come to Hanford for disposal.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their positions paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Russell Jim	General	33. This is a new permit, not a revision of a permit. It should not be identified as Rev.9.	The Hanford Site-wide Permit was first issued in 1994 as a new permit. Since that time, each time a unit group was added or removed from the permit, it was given a new revision number. When the permit was drafted for renewal, it was given the revision number Rev. 9. Under WAC 173-303-806(11), permits are effective for a fixed term not to exceed ten years. Unit groups were incorporated or removed from the Hanford Site-wide Permit over the years, thus changing the revision number. The nomenclature of a new revision number has been retained.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	1. Ecology should utilize the Closure Plans submitted in the Part B application and write appropriate Closure Permit conditions to rectify any non-compliance with unit specific closure requirements under WAC 173-303. Closure plans for some units reflect decisions based on the 1990s-era data embedded in the plans that should be viewed with considerable skepticism. As examples: • For 1301-N, the closure plan cites a DOE document stating that mercury will not reach groundwater for 1,000 years. • Also for 1301-N, the plan cites an assertion from DOE that there is not lateral movement of metals in the vadose zone. This broad assertion for all metals appears to be based on analysis of one metal (mercury) in one borehole. • At 1324-N/NA, it is asserted that there is no need for a cap. This conclusion is based on a claim that there is no driver for contaminant movement because precipitation will not reach groundwater for 200 years.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, *Closure and Post-closure*, and WAC 173-303-610(3) *Closure Plan; Amendment of Plan,* which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, *Permit Changes.* 1301-N was closed and removed from the Hanford Site-wide Permit, November 28, 2018. 1324-N and N/A was removed from the Hanford Site-wide Permit, April 25, 2017.
Russell Jim	General	2. The groundwater monitoring plan for 183-H defines a local background concentration for chromium of 122 ug/L. While this might have been the concentration in plumes emanating from 100-D, it is difficult to accept this as a “background” concentration against which treatment effectiveness at the 100-F area can be meaningfully evaluated.	In the current Groundwater Monitoring Plan, the concentration limit of total chromium is 48 micrograms/L (same as Cr(VI) under WAC 173-340-720 Method B - Table D-7). The 122 value mentioned in the comment refers to previous 1995 plan for chromium, using 2 upgradient wells to represent background conc. (Section D.2.6). The max. conc. limit has been reduced from 122 to 48 micrograms/L for chromium in groundwater.
Russell Jim	General	3. Ecology should ensure the approved closure plan is consistent with unit-specific Dangerous Waste Regulations-WAC 173-303 (e.g., Surface Impoundment regulations).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	4. Ecology should include approved Closure Plans and/or Permit Conditions within the Permit(s) to ensure compliance with WAC 173-303-610 and unit specific closure requirements, and should not presumptively approve plans that do not yet exist. There is a lack of requirements for submittal of closure plans in the new RCRA Permit. Reference to closure actions under non-existent CERCLA document violates DW closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3).	Closure Plans were updated to be in compliance with WAC 173-303-610 requirements all Hanford Site-wide Permit, Rev. 9A Unit Groups. Parts I and II Conditions, II.J, "Closure and Post-Closure" and unit-specific permit conditions provide additional requirements for Closure Plans. For those unit groups under Coordinated Closure, the Permittees are required to meet all RCRA dangerous waste regulations for closure as well as the CERCLA closure actions.
Russell Jim	General	5. Ecology should include Ecology approved and Dangerous Waste WAC 173-303 compliant RCRA Groundwater Monitoring Plans as attachments to unit specific Permits within their Closure Plan Addendums.	Ecology developed Groundwater Monitoring Plan guidance and requirements for specific unit groups in the Hanford Site-wide Permit, Rev. 9A. The unit groups with under groundwater monitoring requirements, completed workshops to discuss the requirements and work through deficiencies in Addenda D, "Groundwater Monitoring Plans." A template was created for Addenda D to ensure consistency.
Russell Jim	General	6. All Addendums identified as “reserved” should include the WAC 173-303 required information in order to be in compliance with the regulations.	Within the Site-wide Permit, some of the unit groups do not require all the addenda for a complete application that complies with WAC 173-303 requirements. For example, the intact containment and secondary containment of hazardous waste at the Waste Treatment and Immobilization Plant Unit Group 10 prevent hazardous waste from interacting with groundwater so a Groundwater Monitoring Plan is not required for this unit.
Russell Jim	General	7. Ecology should require all unit-specific groundwater monitoring plans be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.	All unit-specific groundwater monitoring plans are consistent with the Ecology Publication # 04-03-030, *Guidelines for Preparing Quality Assurance Plans for Environmental Studies* and WAC 173-303-645 dangerous waste regulations.
Russell Jim	General	8. Ecology should include in each unit-specific Permit the full list of COCs as noted or identified in unit- associated draft RI/FS documents previously submitted to Ecology.	Addenda D, "Groundwater Monitoring Plans," contains the approved groundwater monitoring plans for all regulated units in the permit in the unit-specific chapters. All dangerous waste constituents, their concentration limits, points of compliance, and general groundwater monitoring requirements are contained as permit conditions or in the groundwater monitoring plans. In the standard permit conditions, there are requirements for groundwater monitoring in II.F.
Russell Jim	General	9. Ecology should require use of a methods-based approach in the unit-specific Sampling and Analysis Plans.	Ecology developed Waste Analysis Plan guidance that requires development of Sampling and Analysis Plans. Permit Conditions II.D reinforce the requirements within the WAP guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	10. Ecology should require use of non-filtered sampling in the Sampling and Analysis, and require repairs and replacement of wells per WAC 173-160.	The Permit Conditions do require repairs and replacement of wells per WAC 173-160 and WAC 173-303-645(8). Ecology does require non-filtered samples for various constituents.
Russell Jim	General	11. Ecology should require the unit-specific training plans are included directly within the Training Addenda.	In reviewing the unit groups to prepare for the revised renewal, Ecology reviewed each portion of a Part A and B permit application to ensure an equivalent, enforceable, consistent, and implementable draft permit renewal was prepared. Each unit group was reviewed to determine if a Training Plan is required. For a complete list of unit groups and addenda, see the Hanford Site-wide Permit, Rev. 9A Fact Sheet.
Russell Jim	General	12. Ecology should coordinate and incorporate RCRA inspection requirements for the unit-specific Permits with those for the associated CERCLA groundwater operable unit's.	Required Addenda I, "Inspection Plan" were revised to reflect all inspection requirements.
Russell Jim	General	13. Ecology should ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	14. Ecology should review and revise Part V (closing) Permits to ensure compliance with Land Disposal Restrictions (LDRs).	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.
Russell Jim	General	15. Ecology should review and revise Part V (closing) Permits to ensure that non-existent Part II conditions are not cited (e.g.1301-N).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	16. All RCRA TSD closure performance standards must use MTCA Method B cleanup levels. Ecology should include Permit conditions to ensure closure of a RCRA TSD facility as described in the Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, Ecology should include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: a. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or b. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or c. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	17. Permit(s) should include compliance schedules in accordance with WAC 173-303-610 closure regulations.	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	18. Ecology should include a Permit condition requiring submittal of all RD/RA work Plans to Ecology as subject to WAC 173-303-830/840 Permit modification process.	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Russell Jim	General	19. Ecology should include permit condition(s) for the contingency for additional cleanup should selected remedies, whether carried out under RCRA or CERCLA, prove to be inadequate (e.g., restoration of groundwater as an example).	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Russell Jim	183-H	1. Ecology acceptance of closure certification in question as there doesn’t seem to be an approved closure plan	ECY accepted USDOE's closure certification for the 183-H unit on 5/13/1997. The Closure Plan is included in 183-H Post Closure Permit Application dated June 1988. DOE/RL 88-09 [I-1] "The ISCPCP for the 183-H Solar Evaporation Basins (DOE 1988) was submitted to Ecology in March 1988 and is incorporated by reference."
Russell Jim	183-H	2. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. Request for submittal of updated post-closure plan to include placement of a cover; placement of a cover should have been a closure action so how can the unit be in post-closure?	Ecology has received a revised permit application for Revision 9A.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	183-H	Additionally, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identifies any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.

Commenter	Unit Group	Comment	Comment Response
		§ Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in	

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		the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identifies and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions.	

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		o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including is concentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within	

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		forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 183-H Solar Basins.	
Russell Jim	183-H	: Filtered sampling; incomplete list of COCs'; Groundwater document (Hartman 1997) is outdated and not in compliance with WAC 173-303-645: • Objective stated 'to evaluate general trends in concentration of 183-H COCs. This does not meet WAC 173-303-645(11) requirements. • Not all COCs previously identified as exceeding groundwater protection standards are monitored (e.g., manganese). • Wells listed are inconsistent with referenced documents and permit Addendum D. Include 199-H4-12A, 199-H4-12C, 199-H4-3, 199-H4-4, 199-H4-7, 199-H4-8, and 199-H4-65 and any new wells added to the network to replace or supplement existing well (to add conservatism and ensure historical continuity of data) and monitor on a quarterly basis. • Concentration limits (D.1.1.2 are not consistent with unrestricted use (Method B) clean up levels but are based on background concentrations from upgradient wells H3-2A and H4-6. • Request Permit conditions be included to ensure the future Groundwater Monitoring Plan specifies or identifies and include the following information: o The groundwater monitoring plan specifies the following water level measurements criteria. • Each time 183-H Solar Evaporation Basins groundwater monitoring wells are monitored, the ground water surface elevation shall be measured to the nearest 0.01 feet using an electric water level indicator prior to evacuation and collection of samples and immediately after samples are collected. • All groundwater elevation measurements shall be recorded on a groundwater measurement form. • Prior to the collection of ground water elevation measurements, equipment to be used shall be calibrated in accordance with the	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.

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		manufacturer's instruction and a National Institute of Standards and Technology (NIST) traceable calibration program. • If steel tape equipment is used to measure ground water surface elevations, the operation of the equipment shall first be checked by inserting the probe or contact ends in water to ensure the contact is clearly indicated on the meter. • When ground water elevation measurements are collected, at least two consistent measurements shall be taken. • Only clean and/or decontaminated equipment shall be used to collect ground water surface elevations. • A description of how the ground water surface elevation measurements will be made. o The groundwater monitoring plan specifies the following groundwater monitoring well maintenance elements. • Each time 183-H Solar Evaporation Basins wells are monitored; the condition of the well will be noted and recorded. • Subsurface ground water monitoring well inspection and maintenance shall be performed on a 3- to 5-year schedule or as needed to repair problems identified during sampling. In the event a ground water monitoring well becomes unsuitable for use, the status shall be documented and reported to Ecology within fifteen (15) days of identifying the well as unsuitable for use. In addition, the "unsuitable-for-use" well will be evaluated within thirty (30) days of the designation to determine if a new well should be constructed. A copy of the evaluation shall be provided to Ecology. If applicable, the "unsuitable-for-use" well shall be placed on a well decommissioning list for Ecology's approval. o The groundwater monitoring plan specifies the following groundwater monitoring well purging elements. • The purge volume shall be calculated based on voiding three (3) borehole volumes of water from the well. • The calculated purge volume shall be documented at the time of sampling. • The volume of water purged shall be documented after completion of purging. o The groundwater monitoring plan specifies the following groundwater monitoring in-situ measurements elements to be followed during well purging.	

Commenter	Unit Group	Comment	Comment Response
		• During well purging, at a minimum, the following in-situ criteria shall be measured and documented: temperature, pH, and conductivity. • Temperature, pH, and conductivity shall be obtained at least three times (start, middle, and end of designated purge time). • The in-situ readings shall stabilize prior to sampling and shall be considered "stable" when the following criteria are met: pH – two consecutive measurements are within 0.2 pH units, temperature – two consecutive measurements agree within 0.2 °C, and conductivity – two consecutive measurements agree within 10% of each other. • In addition to the collection of temperature, pH, and conductivity, in-situ turbidity measurements shall be collected. • If in-situ turbidity criteria is not met, two sets of samples for metals analysis shall be collected. One set of samples shall be filtered and the other set of samples shall not be filtered. The SAP include a description of how the samples will be filtered when in-situ turbidity readings criteria is not met. • The groundwater monitoring plan include an identification that immediately after filling the last sample container, the pH, temperature, and specific conductivity of groundwater will be measured and documented. • The groundwater monitoring plan include the technical basis for use of wells 199-H4-9, 199-H4-3, and 199-H4-65 to satisfy the point of compliance definition of WAC 173-303-645(6). • The technical basis should address well location, well design, screen placement, etc. • If a technical basis cannot be provided for using wells 199-H4-9, 199-H4-3, and 199-H4-65 to satisfy groundwater monitoring requirements of WAC 173-303-645 (6) and (8), the groundwater monitoring plan shall specifies when groundwater monitoring wells will be installed at the 183-H Solar Evaporation Basins' point of compliance (as defined by WAC 173-303-645(6)). • If applicable, the groundwater monitoring plan include a schedule for submitting a well installation plan. • The groundwater monitoring plan specifies how the rate and direction of groundwater flow in the uppermost aquifer will be determined on an annual basis as required by WAC 173-303-645(10)(e). In addition, the plan specifies when and how the rate and direction of groundwater flow	

Commenter	Unit Group	Comment	Comment Response
		determinations required by WAC 173-303-645(10)(e) will be reported to Ecology on an annual basis. • The groundwater monitoring plan specifies the changes to groundwater flow and groundwater quality due to interim remedial measures (i.e., pump-and-treat) at the 183-H Solar Evaporation Basins' point of compliance (as defined by WAC 173-303-645(6)) will be determined on a quarterly basis. In addition, the plan shall specifies that, on a quarterly basis, it will be determined if and how the interim remedial measures affect the groundwater monitoring wells. • The groundwater monitoring plan describes and/or specifies river stage fluctuation influences on the water table in the vicinity of the 183-H Solar Evaporation Basins. If river stage fluctuations affect the water table in the vicinity of the 183-H Solar Evaporation Basins, the groundwater monitoring plan must include a description of how groundwater monitoring will be conducted to maximize the amount of groundwater (as opposed to river or surface water) being sampled. • The groundwater monitoring plan describes the annual aquifer tube monitoring at the following river seepage locations: 46, AT-H-1, AT-H-2, AT-H-3, and 47. The plan shall identifies waste constituents, parameters, and/or tracers that will be monitored. At a minimum, the waste constituents, parameters, and/or tracers identified for the 183-H Solar Basins shall be considered for monitoring when sufficient water quantity allows. • The plan identifies how annual monitoring results will be submitted to Ecology. • The groundwater monitoring plan describes how 183-H Solar Evaporation Basin contaminants occurring downgradient from the unit will be characterized in the unconfined aquifer. Specifically, the plan shall describe how contaminant stratification characterization in the unconfined aquifer will be achieved. • The groundwater monitoring plan specifies how the "duration of use" of all groundwater monitoring wells within the vicinity of the 183-H Solar Evaporation Basins (e.g., 199-H4-7, 199-H4-9, 199-H4-3, 199-H4-65, 199-H4-12A, 199-H4-12B, 199-H4-12C, and 199-H4-4) will be estimated. In addition, the plan shall specifies the "duration of use" estimates will be reported to Ecology on an annual basis. o Include a permit conditions to ensure that prior to the installation of any	

Commenter	Unit Group	Comment	Comment Response
		additional wells to be used to satisfy WAC 173-303-645 groundwater monitoring requirements associated with the 183-H Solar Evaporation Basins, the Permittee shall submit, for Ecology's approval, a well installation plan that specifies the proposed location of well, well design, installation procedures, management of wastes generated during well installation, etc. o Include a permit conditions to ensure that prior to any actions taken to deepen "dry" wells within the vicinity of the 183-H Solar Evaporation Basins, the Permittee shall submit a well deepening plan for Ecology approval that satisfies the groundwater protection standards of Chapter 173-160 WAC. • The well deepening plan shall not be implemented until after the Permittee receives Ecology's approval of the plan. • For wells located downgradient to and in the immediate vicinity of the 183-H Solar Evaporation Basins (i.e., wells 199-H4-7, 199-H4-9, 199-H4-3, 199-H4-65, 199-H4-12A, 199-H4-12B, 199-H4-12C, and 199-H4-4) for which new information (i.e., inspection information, report of damage, indication during use, etc.) has been obtained via well maintenance activities, routine use, or incident reporting indicating the well is an environmental, safety, or public health hazard, the Permittees shall provide Ecology written notice of the conditions of the well. • For such wells, the Permittees shall provide Ecology a description of actions to be taken which includes a schedule for well remediation or decommissioning. For such wells, the Permittees must obtain Ecology's written approval to remediate or decommission the well. o Three (3) years after the groundwater monitoring plan has been implemented, the Permittee submit a revised groundwater monitoring plan which specifies the 183-H Solar Evaporation Basins dangerous waste constituents to which the groundwater protection standards of WAC 173-303-645(3) apply. • The groundwater monitoring plan shall identifies 183-H Solar Evaporation Basins waste constituents for which there has been evidence of an increase in contamination at the 183-H Solar Evaporation Basins compliance point. • For 183-H Solar Evaporation Basins waste constituents that are required to be monitored for which the Permittee proposes to exclude from meeting the groundwater protection standards of WAC 1730303-645(3),	

Commenter	Unit Group	Comment	Comment Response
		the Permittee must address considerations of WAC 173-303-645(4)(b)(i), (ii), and (iii). • The groundwater monitoring plan identifies proposed 183-H Solar Evaporation Basins waste constituent concentration limits that satisfy WAC 173-303-645(5)(a)(i) or (ii). • The groundwater monitoring plan specifies actions to be taken when proposed concentration limits have been exceeded which include 1) notification of the exceedance, and 2) submittal of an application for a permit modification to establish a corrective action groundwater monitoring program which satisfies WAC 173-303-645(11). • The groundwater monitoring plan is signed and certified in accordance with the requirements of WAC 173-303-810(12) and (13). • The Permittee shall implement the groundwater monitoring plan required by this Condition within forty-five (45) days of receiving Ecology's approval of the plan. o Which 183-H Solar Evaporation Basins-specific waste constituents, indicators, and/or groundwater contaminants will be used for statistical comparisons? At a minimum, statistical comparisons between upgradient and downgradient wells must be performed for the following waste constituents, indicators, and/or groundwater contaminants: chloroform, methylene chloride, tetrachloroethene, trans-1,2-dichloroethylene, trichloroethene, 1,1,1-trichloroethane, aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, vanadium, zinc, chloride, fluoride, nitrate, nitrite, phosphate, sulfate, cyanide, formic acid, and total organic carbon. o For purposes of satisfying groundwater monitoring requirements of WAC 173-303-645(8)(g) and (10)(d), the Permittee be required by Permit condition to establish initial upgradient concentrations for the 183-H Solar Evaporation Basins -specific waste constituents, indicators, and/or groundwater contaminants by obtaining at least four replicate measurements for each constituent identified collected quarterly for one year from the upgradient well identified for which statistical comparisons will be made. o The groundwater monitoring plan identifies the 183-H Solar Evaporation Basins-specific waste constituents, indicators, and/or groundwater	

Commenter	Unit Group	Comment	Comment Response
		contaminants that will be monitored. At a minimum, the groundwater monitoring plan must identifies 183-H Solar Evaporation Basins-specific waste constituents, indicators, and/or groundwater contaminants and respective analytical methods. o The groundwater monitoring plan identifies cesium-137, cobalt-60, strontium-90, isotopic uranium, plutonium-239/240, technetium-99, zinc-65, gross alpha, and gross beta as the 183-H Solar Evaporation Basins-specific radionuclides as “waste indicators” or “tracers”. Statistical comparisons are not required to be performed on waste indicators. o The groundwater monitoring plan include a sampling and analysis plan (SAP) which will identifies analytical methods and include descriptions of analytical procedures that will be followed for analyzing the 183-H Solar Evaporation Basins-specific waste constituents and indicators. The SAP shall be consistent with the following and Ecology publication Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]	
Russell Jim	183-H	Future actions identified in are closure actions (i.e., disposition of remaining nitrate and fluoride contamination in underlying soils; design of and placement of a landfill cover). There is no final corrective action for groundwater monitoring plan. It is unclear how the interim action treatment methodology is able to demonstrate achievement of the Corrective Action goals. Reliance on unwritten CERCLA documents is not compliant with the Dangerous Waste regulations of WA C173-303-610(7). This unit belongs in Part V until these all future actions are completed.	An updated groundwater monitoring plan has been submitted for Rev 9A and reviewed for WAC compliance.
Russell Jim	324 Bldg	1. Add 324 Building to the Permit. Due to the B-Cell leak which requires extensive cleanup, this unit should be included in the Permit at the very least as a Part IV Corrective Action Unit.	The 324 Building is included in the Hanford Site-wide Permit, Rev. 9A as Closing Unit Group 31.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	1. Include a definition for ancillary equipment for all tanks systems. Suggest text: The term “ancillary equipment” will mean any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of dangerous waste from its point of generation to a storage or treatment tanks(s), between dangerous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site. These are to be regulated as a part of the tank system and are to be considered subject to WAC 173-303-640 closure regulations.	"Ancillary equipment" is defined in WAC 173-303-040 which is incorporated by reference in Definitions to the permit.
Russell Jim	WTP	1. Revise/include a Permit condition that defines the criteria and standards to be used to identify and evaluate chemical and radiological constituent hazards that could occur at the WTP facility. Include a Permit condition requiring hazard analysis to be performed early in the process, rather than just prior to receipt of waste, to support necessary design change or mitigation.	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.
Russell Jim	WTP	2. Revise/include a Permit condition requiring response planning for criticality and natural phenomenon (e.g. Cascadia seismic events) that addresses both the direct and indirect effects from major events.	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.
Russell Jim	WTP	3. Revise/include a Permit condition requiring contingency planning for suffocating CO_2 release events from the cooling systems. Ecology should revise/include a Permit condition with specific actions to ensure that CO_2 fire extinguishers are not used on or near high voltage equipment, or in areas that are or may become “confined spaces”.	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.
Russell Jim	WTP	4. Revise/include a Permit condition requiring contingency planning for response to the damages and difficulties associated with volcanic events (e.g., Highly abrasive ash infiltration into operating spaces resulting secondarily in failure of exit safety equipment to perform).	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards, and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	WTP	5. Revise the Emergency Management Plan to reflect and ensure compliance with new WTP conditions as described in the above advice points for the WTP facility. Ecology should revise Permit conditions requiring compliance with Waste Acceptance Criteria and Section 1 Introduction and Addendum B1 to more accurately reflect the NRC's provisional position on reclassification of ILAW waste as incidental to reprocessing. The NRC has yet to make a determination for Hanford.	DOE's interpretation of the definition of High Level Waste is not within the scope of the proposed permit renewal.
Russell Jim	WTP	6. Do not defer or delegate authority for RCRA actions to external processes and documents. Include detail standards, requirements, methods and frequencies as permit conditions. Append all referenced versions of documents to the permit with active hyperlinks to the referenced section(s). Some referenced documents appear to be missing from the permit. Examples: Addendum B-1 a. Waste Treatment Plant Quality Assurance Project Plan for the Waste Analysis Plan, Rev. 0.; b. 24590-WTP-RPT-MGT-04-001, Rev. 0,Regulatory Data Quality Objectives Optimization Report; and c. RPT-W375LV-EN00002, as amended, Approach to Immobilized Hanford Tank Waste Land Disposal Restrictions Compliance	Since the permit renewal in 2012, Ecology has been working with the Permittees to ensure a complete permit prior to operations of the WTP Facility.
Russell Jim	WTP	7. Update Permit conditions III.10.C.2.n.i through .iv to reflect current dates/future dates.	Permit condition III.10.C.2.n has been completed. The permit has been updated to reflect the completed status.
Russell Jim	WTP	8. Revise/include a Permit condition to ensure that Tank Wastes are immobilized in a durable waste form with performance at least equivalent to glass for the entire waste form, and to ensure proper characterization of tank wastes. The Board supports vitrification of wastes and opposes alternate waste forms unless their performances can be shown to be at least "as good as glass" (including secondary waste streams - see HAB Advice #258).	The WTP Permit includes permit conditions and Addenda that reflect the vitrification of waste and ensure proper characterization of tank wastes. Ecology expects the permittees to meet their commitments described in the WTP Permit. The WTP Permit contains permit conditions and an interim compliance schedule that provided Ecology with the opportunity to review and comment on the WTP design and Waste Analysis Plan (Chapter 3) to ensure characterization of tank waste prior to receipt of the waste at WTP. Currently, the Waste Treatment Plant configuration supports vitrification as the primary waste treatment processing mechanism. The Tri-Party Agreement supports this by requiring the vitrification of wastes, both high-level and low-activity waste. The Integrated Disposal Facility waste acceptance criteria requires that incoming waste be vitrified.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	WTP	9. Revise/include a Permit condition to ensure the facility's design is based on sound engineering principles and according to applicable regulations. Include a Permit condition to ensure all necessary testing or studies are performed well in advance of when data is needed for design and construction (see HAB Advice #258).	The phased permitting approach implemented for WTP provided Ecology with the opportunity to review the sound engineering principles and capabilities incorporated into the WTP design before systems) that addresses both the direct and indirect effects from major events. These design deliverables included independent corrosion evaluations. These design deliverables included independent corrosion evaluations, engineering design and document assessment, Independent Qualified Registered Professional Engineer integrity assessments and Process Flow Diagrams in which Ecology is on review to ensure a complete and accurate permit.
Russell Jim	WTP	10. Revise/include a Permit condition to ensure WTP supporting facilities operate as intended throughout the operational life of the WTP facility while also performing their respective operations of support for other Hanford facilities (e.g. 242-A Evaporator).	The WTP Permit is written to treat and dispose of waste from the Double-Shell Tanks in a glass configuration. The permit does not include open-ended language to incorporate new treatment and disposal operations that are outside the bounds of the design of the facility.
Russell Jim	WTP	11. Include/revise a Permit(s) condition(s) to require that all engineering drawings included in the permit be stamped by a registered professional engineer [WAC173-303-640].	WTP process flow diagrams comply with the requirements outlined in Permit Condition III.10.E.9.c.ii. Ecology reviews process flow diagrams to ensure they are complete and accurate. Additionally, instrumentation tables are included in the WTP Permit. Many of the instrumentation mentioned in the comment are located on the table. Additionally, the Permittees have submitted Construction Certification packages in support of Permit Condition III.10.C.2.a. Ecology reviewed and accepted the Construction Certification packages for the Laboratory, Low-Activity Waste facility and the Effluent Management Facility to support Direct Feed Low-Activity Waste operations.
Russell Jim	WTP	12. Include/revise a Permit(s) condition(s)to require the Permittee(DOE) to demonstrate that the plant design is technically functional, especially in the case of technical issues identified by the Defense Nuclear Facility Safety Board and/or by Ecology staff related to: a. Mixing (especially for non-Newtonian fluids) b. Particle settling (especially for criticality control, but also for heavy metals – lead, chromium, nickel …) c. Hydrogen gas generation and deflagration d. Erosion and corrosion.	WTP process flow diagrams comply with the requirements outlined in Permit Condition III.10.E.9.c.ii. Ecology reviews process flow diagrams to ensure they are complete and accurate. Additionally, instrumentation tables are included in the WTP Permit. Many of the instrumentation mentioned in the comment are located on the table. Additionally, the Permittees have submitted Construction Certification packages in support of Permit Condition III.10.C.2.a. Ecology reviewed and accepted the Construction Certification packages for the Laboratory, Low-Activity Waste facility and the Effluent Management Facility to support Direct Feed Low-Activity Waste operations.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	WTP	13. Include/revise a Permit(s) condition(s) to ensure that plant systems and all facility vessel designs contain provisions to accomplish clean closure in accordance with WAC 173-303-610 & WAC 173-303-640.	Closure performance requirements are identified in WTP DWP Chapter 11, Closure Plan.
Russell Jim	WTP	14. Revise/include a Permit(s) condition(s) to ensure the emergency plans include an assessment of various modes of systems failures and their impacts on the emergency plans (e.g. common, cascade, sequential, parallel and other modes; age related failures through erosion, wear, corrosion, etc.).	WTP hazards are analyzed and described in WTP Permit Chapter 6, Procedures to Prevent Hazards and Chapter 7, Building Emergency Plan. These two chapters identify the hazards that could be encountered from facility operations, and establish plans for how the hazards will be addressed.
Russell Jim	WTP	15. Include/revise a Permit(s) condition(s) to require equivalent capabilities for each “train of equipment (e.g. Melter off-gas treatment system)” whenever/where ever multiple parallel trains exist in the facilities.	The phased permitting approach implemented for WTP provided Ecology with the opportunity to review the sound engineering principles and capabilities incorporated into the WTP design before equipment was installed in the facility. These design deliverables included independent corrosion evaluations. The permittees will demonstrate the technically functional elements of the facility via testing and integrity assessments.
Russell Jim	222-S	1. Include a Permit condition to ensure the 222-S identification of all waste codes for all waste processed in the facility.	Addendum B (WAP) requires identification of all waste codes for waste processed in the facility. The certified Part A Form submitted by the Permittee contains waste codes for all wastes processed in the dangerous waste management units in the 222-S facility.
Russell Jim	222-S	2. Include a Permit condition to ensure 222-S facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks).	Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied on a schedule that prevents hazards to human health and the environment.
Russell Jim	325 HWT	1. Include a Permit condition to ensure 325 Facility has the necessary upgrades, including maintenance and replacement of equipment for safe operations (examples: plumbing, sumps, and associated piping to waste receiving tanks).	Addendum I (Inspection) requires that permitted areas and equipment in the facility are inspected on a regular basis and problems are remedied on a schedule that prevents hazards to human health and the environment.
Russell Jim	325 HWT	2. Include a Permit conditions to ensure the 325 Hazardous Waste Treatment Units identification of all waste codes for all waste processed in the facility.	Addendum B (WAP) requires identification of all waste codes for waste processed in the facility. The certified Part A Form submitted by the Permittee contains waste codes for all wastes processed in the dangerous waste management units in the 325 HWTU.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	400A	1. Include a Permit condition preventing acceptance of offsite waste at the 400 Area using its authority under WAC 173-303-815(2).	1. There is no need to draft a permit condition preventing acceptance of offsite waste at the Fuel Storage Facility (FSF) of the 400 Area WMU because it is a one-of-a-kind facility that was specifically designed to store core component pots (CCP) and only the CCPs, and all CCPs in existence are currently stored at the FSF. The ISA was clean closed in 2025 and is no longer a dangerous waste management unit.
Russell Jim	400A	2. Draft a Permit condition preventing acceptance of incompatible waste by their waste acceptance criteria.	2. In Revision 9A, the 400 Area WMUs are a closing unit group and unable to accept any new waste.
Russell Jim	400A	3. Include a Permit condition with dates for the removal of all sodium-bearing materials and subsequent clean closure.	3. Tri-Party Agreement (TPA) milestone M-092-09 establishes milestones and/or target dates, if needed, for acquisition of new facilities, modifications of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium. The milestone requires that the planning for the future disposition of Hanford site sodium and the FFTF reactor begin by June 30, 2018. The 400 Area WMU may play an important role in providing a location for storage and treatment/processing of sodium contaminated piping, equipment, and materials during the decommissioning of the FFTF reactor. Ecology will follow the Tri-Party Agreement milestones.
Russell Jim	400A	4. Review and revise the Part A form to limit storage capacity to the currently stored volumes of sodium-bearing mixed waste currently stored in the facility.	4. There is no need to revise the Part A to limit the storage capacity at the Fuel Storage Facility (FSF) because the FSF is a one-of-a-kind facility that was specifically designed to store core component pots (CCP) and only the CCPs, and all CCPs in existence are currently stored at the FSF. The ISA was clean closed in 2025 and no longer classified as a dangerous waste management unit.
Russell Jim	CWC	1. SEPA: DNS base on previously submitted SEPA checklists and prior determinations. New permits require new evaluations of current operations. Current Permit conditions do not ensure mitigation will result in compliance with WAC 173-303 requirements at this unit.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Additionally, permit conditions have been revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	2. MDNS for this TSD unit emphasizes the need for the over-all SEPA determination to be at least a MDNS rather than a DNS.	Ecology provided a SEPA determination for Rev. 9 in 2012. Using the 2012 SEPA determination, we expanded upon the original decision by adopting more recent and robust environmental analyses. The link to SEPA documentation is in the Hanford Site-wide Permit, Rev. 9A Fact Sheet. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner.
Russell Jim	CWC	Permit Conditions General Comments: Revise Permit conditions to include all necessary conditions to bring the Central Waste Complex into compliance (e.g., RCRA requires dams, berms, and containment to be present that equal the content of the drums). 1. Ecology is authorizing the permitting of a non-compliant RCRA facility subject to the WAC 173-303 regulations. Ecology is requested to require the construction of a RCRA compliant facility in the foreseeable future. Ecology is requested to revise the Permit conditions as follows: • Revise Permit conditions to include requirements that all wastes are properly characterized to ensure that explosive or flammable chemicals are properly stored to comply with all requirements of WAC 173-303, 280(6)(b), WAC 173-303-630(7), (8) & (9) and WAC 173-303-395. • Revise Permit conditions to include requirements that all wastes are tested, characterized and properly designated and removed for treatment on an accelerated schedule which is incorporated into the Permit's compliance schedule. • Revise Permit conditions to include that all waste stored at the CWC are cataloged and properly labeled. • Revise Permit conditions to include that all waste stored outdoors is be removed from the facility and properly stored or shipped offsite on an accelerated schedule which is incorporated into the Permit's compliance schedule. • Revise Permit conditions to require no acceptance of any new waste until proper characterization/designation/and needed treatment of the existing waste has been done. • Revise Permit conditions allowing unlimited treatment and 24-hour storage of wastes outside on paved areas and other areas beyond the boundaries of the TSD unit. Secondary containment must be provided if the absence of free liquids has not been verified. This is unauthorized	As part of the Rev 9 permit renewal, Addendum B (WAP) and Addendum C (Process Information) underwent extensive revisions. The revisions included, but are not limited to, the following: - ensuring that all storage locations met regulatory requirements - packaging requirements - secondary containment requirements - waste receipt requirements - etc

Commenter	Unit Group	Comment	Comment Response
		storage of wastes. Any waivers request to provide exceptions to the rule should be denied based on evidence from records which include documents about past spills and leaks, and misdesignation of waste containers. • Revise Permit conditions to include compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes. • Remove all references to acceptance of Off-site Waste at CWC. Off-site wastes should not be permitted to be buried on the Hanford site until a cumulative Risk Assessment indicates there will be no exceedances of groundwater cleanup standards. Include a Permit condition indicating as such.	
Russell Jim	CWC	2. Revise Permit conditions to require identification of current inventory of CWC stored MLLW and TRUM waste quantities by storage locations; waste type; waste volumes (i.e., packaged & estimates for unpackaged); and number of waste packages. Require this information to be attached to the Permit in Addendum B or C.	The Part A identifies the maximum storage capacity and for each DWMU including waste codes. Because this is an operating unit, the number or waste packages on any given day may change due to operating activities. Changes in waste inventory and location are tracked and reported as part of the SWOC and M-091 PMM.
Russell Jim	CWC	3. Edit Permit to include conditions addressing discovery of any anomalies and regulatory path forward under WAC 173-303.	Container identified as having anomalies are tracked under the discrepant container management program.
Russell Jim	CWC	Reader has difficulty in identifying the waste acceptance criterion. Required elements are difficult to track. Edit sections to clearly identify what are the major criteria (e.g., compliance with LDRs; no free liquids; what number of chemical and physical screening anticipated for each separate waste stream and how single container waste steams will be dealt with, etc.). Include text to reflect new permit conditions for modifications to the waste acceptance criteria for specific waste streams or mitigation measures. Include all modifications to the waste acceptance criteria is subject to WAC 173-303-830 process.	The revised Addendum B (WAP) includes information on waste receipt, characterization, land disposal restrictions, and other pertinent information.
Russell Jim	CWC	1. Revise/qualify text supporting processing of waste which may not meet the onsite LDR treatment standards. Wastes not meeting LDRs are required to have treatment at point of generation. Include this last statement as a permit condition.	All waste subject to LDR must be treated to meet applicable treatment standards. The CWC WAP and Process Addenda address how this is completed.
Russell Jim	CWC	2. Include statement that no off-site wastes will be accepted at CWC.	CWC is authorized to receive any waste which meets Hanford Waste Acceptance Criteria.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	3. Develop appropriate requirements for a WAC 173-303-630 compliant Container Storage area.	The Process addendum (Container Management Practices) addresses the requirement for WAC 173-303-630; Use and Management of Containers.
Russell Jim	CWC	4. Include a permit condition requiring submittal of a corrective action plan (CAP) that clearly states the reason for the conformance issues resulting in a waste container not meeting the CWC waste acceptance criteria and describes the actions required to prevent the recurrence and corrective actions to be taken.	The revised Addendum B (WAP) includes information on waste receipt, characterization, land disposal restrictions, and other pertinent information.
Russell Jim	CWC	5. Include a permit condition requiring waste analysis contained in documented studies on the generator's waste is based on representative and appropriate sampling and testing methods per WAC 173-303-110. Edit Section B.2.1 to include evaluation of such sampling data as part of the pre-shipment review. Edit Section B.2.1.3 to include this as needed to confirm the sufficiency and reliability of the "knowledge" used for the waste profile.	The revised Addendum B (WAP) includes information on documentation of generator knowledge, sample data, and any other information used to characterize the waste.
Russell Jim	CWC	6. Include permit condition treatment to meet LDR standards as part of the 'pre-shipment review process.	Dangerous and/or mixed waste deficient in meeting LDR treatment standards, but meeting the waste acceptance criteria for CWC DWMUs, may be stored at the CWC Operating Unit Group. However, if the waste is subject to LDR and requires further treatment to meet applicable treatment standard, the generator supplies additional information concerning the waste and details any treatment necessary to meet applicable treatment standards. If waste is treated to meet state-only or federal LDRs at the CWC DWMUs, the CWC operating organization prepares information necessary to meet WAC 173-303-380(1)(k)
Russell Jim	CWC	7. Include position name and training requirements for the "witness qualified to determine that waste meets CWC waste acceptance criteria."	Addendum G (Personnel Training) identifies all positions and the training required for those positions. In addition, Addenda B (WAP) and C (Process Information) contain information on how waste acceptance is performed.
Russell Jim	CWC	8. Include permit condition requiring compliance with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	The revised Addendum B (Waste Analysis Plan) contains information on complying with the requirements in this document.
Russell Jim	CWC	1. Edit Section B.1.1.1.2.1: Include requirement of compliance with WAC 173-303-300(2)(a)(i thru iv) to confirm the sufficiency and reliability of the "knowledge."	The "knowledge" is defined in WAC 173-303-040, but the use of and requirements for "knowledge" is discussed in WAC 173-303-300(2)(a).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	2. Edit Section B.1.1.1.2.3: Include the responsible person who does review physical screening frequency, determines corrective actions, or resolves waste acceptance issue for CWC.	Text has been revised to identify positions and qualifications of individuals or persons responsible for verification of waste receipt at CWC.
Russell Jim	CWC	3. Edit Section B.1.1.1.2.3: Edit text to more clearly state the minimum percentage(s) of those containers subjected to chemical screening by field and/or laboratory analysis. Provide basis for percentages.	Addendum B (Waste Analysis Plan) identifies the minimum percentages of physical and chemical screening of container.
Russell Jim	CWC	4. Edit Section B.1.1.1.2.5: Edit text to also include that discrepancies must be reconciled within 15 days in compliance with WAC 173-303-370(4)(b).	Discrepant containers are managed in accordance with WAC 173-303-630.
Russell Jim	CWC	5. Delete Section B.1.1.1.2.6: WAC 173-303-300(2) requires analysis of wastes. What is provided in the Initial Physical Screening Frequency Determination section is barely adequate. Maintain physical screening rates as indicated in Section B.1.1.1.2.3.	Addendum B (Waste Analysis Plan) identifies the minimum percentages of physical and chemical screening of container.
Russell Jim	CWC	6. Edit Section B.1.1.2 to require compliance with WAC 173-303-160, -161, -280, &-395 as well. Include detail description. Identify compliance measures.	The revised Addendum C (Process Information) includes information that is in compliance with the cited regulatory sections.
Russell Jim	CWC	7. Edit Section B.1.2 to delete text supporting field screening and sampling at storage locations. Require theses actions to be performed at point of generation to ensure compliance with WAC 173-303-070. Require sampling in accordance with WAC 173-303-110 & -300.	Field screening may be necessary to support designation and waste acceptance criteria for waste generated at CWC. In addition, field screening is done at the point of generation.
Russell Jim	CWC	8. Edit Section B.2.1 to clarify location for storage of physical newly generated wastes.	The Part A identifies the maximum storage capacity and for each DWMU including waste codes. The Process Addendum discusses authorized DWMUs by location and approved content.
Russell Jim	CWC	9. Edit Section B.2.1.1 to include evaluation of sampling data as part of the pre-shipment review. Include information required in Section B.2.1.1.3 as required. This will ensure the validity and support statement that the pre-shipment review consists of the waste stream approval and waste shipment approval process.	Review of analytical data is included in the pre-shipment review process. It is a required element of the waste stream profile.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	10. Edit Section B.2.1.1.1 and Figure B.3 to include statement: Waste that cannot be accepted at the CWC or at an alternative SWOC TSD unit shall be returned to the Generator.	The Process addendum addresses what happens if a waste is rejected and needs to be returned to the generator.
Russell Jim	CWC	11. Edit Section B.2.1.1.2 to include under waste description the quantity [volume] of the wastes [include differentiating the wastes] to ensure validity of waste descriptions.	The waste description, waste designation, dangerous waste number, waste composition and packaging material and quantity provides sufficient information without the need to measure the volume of waste in the container.
Russell Jim	CWC	12. Edit Section B.2.1.1.2 to include a new section describing the process of how and who is the responsible person for determining when any of the waste containers will be physically and/or chemically screened.	Chemical screening is done by CWC personnel at the Hanford onsite generating location prior to shipment. The WAP and Process addenda together describe how this is done.
Russell Jim	CWC	13. Edit Section B.2.1.1.3.1; (3) to include detailed chemical, physical, and/or biological analysis of waste to confirm the sufficiency and reliability of the “knowledge” used for the waste profile.	When the available information does not qualify as Knowledge or is not sufficient to characterize a waste for management, the sampling and testing methods outlined in WAC 173-303-110 will be used to determine whether a waste designates as ignitable, corrosive, reactive, and/or toxic. In addition, sampling and testing methods will be used as applicable to determine whether the waste contains free liquids. If the testing is performed to complete characterization after acceptance of the waste by the CWC, then this WAP governs the sampling and testing requirements.
Russell Jim	CWC	14. Edit Section B.2.1.2 Verification: Include text requiring treatment to meet LDR standards as part of the ‘pre-shipment review’ & verification process.	Dangerous or mixed waste deficient in meeting LDR treatment standards but meets the waste acceptance criteria for CWC DWMUs may be stored at CWC.
Russell Jim	CWC	15. Edit Section B.2.1.2 Verification: Include process for compliance with WAC 173-303-160(2)(b). Include detail description. Identify compliance measures.	The WAC citation 173-303-040 will be corrected to read WAC 173-303-160 (Containers)
Russell Jim	CWC	15. Edit Section B.2.1.2.1 to include text requiring submittal of a corrective action plan (CAP) that clearly states the reason for the conformance issues resulting in a waste container not meeting the CWC waste acceptance criteria and describes the actions required to prevent the recurrence and corrective actions to be taken. Include detail description. Identify compliance measures.	A CAP is not required to address conformance issues result in a waste container not meeting CWC waste acceptance criteria. The process (waste acceptance criteria) determines whether a container is acceptable for receipt. Containers not meeting the waste acceptance criteria for CWC DWMU's are rejected. The Descrepant Container Management Program and Abnormal Container Management Program addresses actions taken when there are conformance issues with containers.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	16. Edit Section B.2.1.2.3.2: Require a minimum of 20% physical screening frequency. Clarify that the “20%” should only be applied to where it is absolutely known that the material inside the drums is exactly the same. State this frequency is per each waste stream and not collectively.	Screening frequencies are discussed in the WAP addendum.
Russell Jim	CWC	17. Edit Section B.2.2.2.3: See comment #5 on maintaining initial screening frequency.	Screening frequencies are discussed in the WAP addendum.
Russell Jim	CWC	18. Edit Section B.2.1.2.3.3 to reflect consistency with WAP knowledge requirements. Delete following: If no location can be found to perform the physical screening, no screening is required. Observation of packaging of waste is to be required.	This has been addressed in the current version of the WAP Addendum.
Russell Jim	CWC	19. Edit Section B.2.1.2.3.3 to include position title and training requirements for ‘delegated representative.’	This information is in the Training Addendum.
Russell Jim	CWC	20. Edit Section B.2.1.2.4 to include quantitative evaluations in addition to qualitative testing [It is a part of the Waste Shipment Approval Process.]. Include tests for polycyclic aromatic hydrocarbons (PAH). Edit Table B.1 to include PAHs.	Chemical field tests are not the same as laboratory tests and not geared toward quantitation. Chemical field tests are considered qualitative sampling and usually provide a yes/no answer.
Russell Jim	CWC	21. Edit B.2.1.2.4.1 to clarify that the “20%” should only be applied to where it is absolutely known that the material inside the drums is exactly the same. State this frequency is per each waste stream and not collectively.	Screening frequencies are discussed in the WAP addendum.
Russell Jim	CWC	22. Edit Section B.2.2.4 to include statement that tests will demonstrate compliance with WAC 173-303-090 requirements. Include statement that “a procedures document” for CWC that define the basis for selecting screening tests will be provided to Ecology for review and approval and attached as an Addendum to the WAP Addendum B. Include permit condition to require this submittal within 30 days of permit approval.	Text was revised to identify that analytical methods performed for determination of dangerous waste characteristics are done in compliance with WAC 173-303-090.
Russell Jim	CWC	23. Edit Section B.2.1.2.5 to include statement that changes to sampling methods requires a permit modification per WAC 173-303-830/840 requirements.	The WAP Addendum addresses when permit modifications are necessary.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	24. Edit Section B.2.1.2.4.2 to qualify exemptions for asbestos and hazardous debris. For both, state require designation that waste doesn't also contain something else; that debris rule LDR treatment standards have been applied.	Waste that has exemptions for asbestos and hazardous debris should be designated for other components present and debris rule for LDR treatment should be applied.
Russell Jim	CWC	25. Edit Section B.2.1.2.6 to include statement requiring consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	The WAP was prepared using both Ecology and EPA guidance.
Russell Jim	CWC	26. Edit Section B. 2.1.2.6.1 as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites during the process [including the NDE process].	The WAP was prepared using both Ecology and EPA guidance.
Russell Jim	CWC	27. Edit Section B. 2.1.2.6.2 as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites during the process.	The WAP was prepared using both Ecology and EPA guidance.
Russell Jim	CWC	28. Edit Section B.2.1.3 to include that discrepancies (i.e., 'conformance issues") must be reconciled within 15 days in compliance with WAC 173-303-370(4)(b) [see previous comments on Verification]	The Addendum B, Waste Analysis Plan for Central Waste Complex (CWC) was totally revised for Rev. 9A. Comments received during the 2012 public comment period were addressed in the revision.
Russell Jim	CWC	29. Edit Section B.2.1.3 to delete all references to acceptance of off-site wastes.	CWC is authorized to receive any waste which meets Hanford Waste Acceptance Criteria.
Russell Jim	CWC	30. Edit Section B.2.2: See comments #s 15 & 28. Edit as needed.	Dangerous or mixed waste deficient in meeting LDR treatment standards but meets the waste acceptance criteria for CWC DWMUs may be stored at CWC.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	31. Edit Section B.2.3 to detail description of how WRP TRUM waste can be reclassified as mixed low level waste (MLLW) during the course of retrieval or subsequent storage. Include permit conditions for management of these wastes and ensure compliance with Dangerous Waste Regulations-WAC 173-303- (particularly WA C173-303-150). Include detail description. Identify compliance measures. Include requirements that all wastes are tested, characterized and properly designated and removed for treatment on an accelerated schedule which is incorporated into the Permit's compliance schedule.	The Addendum B, Waste Analysis Plan for Central Waste Complex (CWC) was totally revised for Rev. 9A. Comments received during the 2012 public comment period were addressed in the revision. As part of the Waste Isolation Pilot Plant (WIPP) certification process, all CWC wastes are characterized and evaluated to meet WIPP Waste Acceptance Criteria and provide for proper packaging for shipment. Mixed waste containers are evaluated using NDE and NDA to aid in characterization. Radioactive content determines whether mixed waste is TRUM or MLLW. TRUM gets certified for WIPP and MLLW is disposed of in the MW trenches 31 and 34 or other approved disposal location.
Russell Jim	CWC	32. Edit Section B.2.3 (all) to reflect consistency with B.2.1.1.1 through B.2.2.3. Include requested permit conditions and text edits as noted above.	The WAP Addendum was reviewed and edited for consistency and to ensure compliance with WAC 173-303.
Russell Jim	CWC	33. Edit Section B.2.3 to include requirements for a detailed chemical, physical, and/or biological analysis of waste to confirm the sufficiency and reliability of the "knowledge" used for the waste profile.	The WAP Addendum has been revised to explain both the use of knowledge and/or when sampling is required.
Russell Jim	CWC	34. Edit Section B.2.4 to require waste stream approval process consistent with WAC 173-303-300. Operational knowledge alone does not ensure compliance.	The WAP Addendum has been revised to explain both the use of knowledge and/or when sampling is required.
Russell Jim	CWC	35. Edit Section B.2.4.2 to require documentation of changes in waste location to comply with WAC 173-303-380(1)(b).	The Process Information Addendum addresses movement of waste containers within the SWOC.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	36. Edit Section B.2.4.1 to include the following text and requirements for waste transfer acceptance: Conformance issues identified during the confirmation process will be documented and managed in accordance with Section B.1.1.1.2.6. Prior to transfer the following conformance issues will be corrected before waste acceptance: • Waste does not match approved profile documentation, • Designation, physical, and/or chemical characterization discrepancy, • Incorrect LDR paperwork, • Manifest Discrepancies as described in WAC 173-303-370(4)(a), (delete reference to • Packaging discrepancy. • Waste that does not meet the CWC waste acceptance criteria	As part of the Rev 9 permit renewal, Addendum B (WAP) and Addendum C (Process Information) underwent extensive revisions. The revisions included, but are not limited to, the following: • Waste does not match approved profile documentation, • Designation, physical, and/or chemical characterization discrepancy, • Incorrect or missing LDR paperwork, • Manifest Discrepancies • Packaging discrepancy. • Waste that does not meet the CWC waste acceptance criteria
Russell Jim	CWC	37. Edit Section B.2.4.3 to require consistency with B.2.1.1.1 through B.2.2.3 processes.	The WAP Addendum addresses verification requirements.
Russell Jim	CWC	38. Edit Section 2.5 bullet #4: Edit 2nd sentence to state: The container will be dispositioned by returning it to the generator for a detailed chemical, physical, and/or biological analysis of waste. The current CWC container storage pads are not in compliance with WAC 173-303-630 requirements and a discrepant container does not meet LDR standards for placement in of these areas.	Discrepant containers are managed in accordance with WAC 173-3030-630. Waste that does not meet LDR can be stored at CWC OUG.
Russell Jim	CWC	39. Edit Section B.2.5 3rd bullet to include details of separate spill containment area for segregated containers. Include requirements for secondary containment.	The WAP Addendum addresses how "discrepant containers" are managed.
Russell Jim	CWC	40. Edit Section B.2.5 5th bullet to state compliance with WAC 173-303-630 requirements.	The Process Information Addendum addresses compliance with WAC 173-303-630
Russell Jim	CWC	41. Edit Section B.2.5 6th bullet to state schedule for discrepancy resolution will be within 15 days.	The WAP Addendum addresses how "discrepant containers" are managed.
Russell Jim	CWC	42. Edit Section B.2.6 to include statement that any Sampling and Analysis Plan shall comply with WAC 173-303-830/840 modification process. Include permit condition requiring submittal per WAC 173-303-830/840 process.	Addendum B (WAP) acts as a SAP for the operating facility. If an additional SAP was required, it would likely be part of a closure plan and is addressed in Addendum H (Closure Plan).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	43. Edit Section B.2.6 to include the following SAP requirements: 1. Any changes to the SAP regarding addition or elimination of COCs are subject to the WAC 173-303-830/840 modification process (including public reviews). 2. Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level	Addendum B (WAP) acts as a SAP for the operating facility. If an additional SAP was required, it would likely be part of a closure plan and is addressed in Addendum H (Closure Plan). Some of the detail described in the comment is included in Addendum B (WAP), but would more likely be found in a closure plan SAP. When a closure plan for an operating unit is revised prior to the time closure begins, this additional detail would be addressed as part of the SAP and in the preparation of the Closure Performance Standard table for the SAP/Closure Plan.

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		of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody	

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		in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw	

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		data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including is concentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after	

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		completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the CWC Facility permit.	
Russell Jim	CWC	44. Edit Section B.4 as needed to ensure QA/QC; require consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	QA/QC is consistent with the requirements of WAC 173-303-110.
Russell Jim	CWC	45. Edit Section B.5.2 to include example of laboratory inspection checklist.	Laboratory inspection checklists are available and maintained in CWC OUG records.
Russell Jim	CWC	46. Edit Section B.5.3 to identify position of and qualifications of personnel performing reviews.	This information is in the Training Addendum.
Russell Jim	CWC	47. Review and edit Section B.7 for consistency throughout Addendum B.	The WAP Addendum addresses consistency in text regarding receipt, processing, treatment, and LDR of waste at CWC OUG.
Russell Jim	CWC	48. Edit Section B.7.1 to require 20% minimum of physical & chemical screening frequencies for verification. Clarify that the “20%” should only be applied to where it is absolutely known that the material inside the drums is exactly the same. Do not accept waste from off-site generators.	Addendum C (Process Information) discusses verification requirements.
Russell Jim	CWC	49. Edit Section B.7.2.1 to require for the listed and characteristic waste numbers that apply to the waste, including any UHC identified by 40 CFR 268.2(i), if the Knowledge of the generator is not sufficient to make complete constituent determinations, a detailed chemical, physical, and/or biological analysis of waste to will be required.	The WAP Addendum has been revised to explain both the use of knowledge and/or when sampling is required.
Russell Jim	CWC	50. Edit Section B.7.2 to require consideration of storage lasting for the foreseeable lifetime of storage rather only 20 years.	Closure of CWC DWMUs (container storage areas) are discussed in the Closure Plan Addendum

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Russell Jim	CWC	51. Edit Section 7.2.2 to require any modifications to the Sampling and Analysis Methods subject to WAC 173-303-830/840 process.	The WAP Addendum addresses when permit modifications are necessary.
Russell Jim	CWC	52. Edit Section B.7.3 to include detail description the regulatory path of wastes requiring treatment other than what the CWC can provide is repackaged, labeled, and transferred to a TSD unit for storage pending identification or development of an appropriate treatment method.	Addendum C (Process Information) describes what and how treatment activities will occur, and at what specific CWC DWMUs.
Russell Jim	CWC	53. Edit Section B.7.3 line 22, to delete following The alternative treatment standards for hazardous debris as specified in 40 CFR 268.45 or for contaminated s.	This sentence no longer exists in the revised permitting documents
Russell Jim	CWC	54. Edit Section B.7.3 as need to ensure consistency with required WAC 173-303 regulations.	Addendum B (WAP) has been revised and edited to ensure compliance with WAC 173-303-300
Russell Jim	CWC	55. Edit Section B.7.4 to identify position of and qualifications of personnel performing certification of LDR treatment. Edit to include disposition process of LDR waste which does not meet the applicable treatment standards.	Addendum G (Personnel Training) identifies all positions and the training required for those positions. In addition, Addenda B (WAP) and C (Process Information) contain information on how LDR compliance is met.
Russell Jim	CWC	56. Edit Section B.8 to include required compliance with WAC 173-303-380.	All CWC operating records are maintained in accordance with WAC 173-303-380
Russell Jim	CWC	57. Edit Addendum to incorporate requested changes in Addendum C as needed.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303
Russell Jim	CWC	1. Edit Addendum C, C.1.1 all Sections to reflect compliance with WAC 173-303-630(2 thru 6) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303.
Russell Jim	CWC	2. Edit Addendum C, Section C.1.1 to state and reflect required compliance with WAC 173-303-630(7). Include detail description of underlying base to clearly demonstrate compliance with WAC 173-303-630(7)(a) & (b).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303.
Russell Jim	CWC	3. Edit Addendum C, Section C.1.1 to state and reflect required compliance with WAC 173-303-630(8)(a)&(b). Use of a vented catch sump does not satisfy or ensure compliance with these requirements nor does it preclude spills from affecting other containers. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.

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Russell Jim	CWC	4. Edit Addendum C, Section C.1.1 to state and reflect required compliance with all requirements of WAC 173-303-395. Section C.1.1 is lacking the detail description of how waste is managed in a manner which is compliant with and prevents situations listed in WAC 173-303-395(1)(a) thru (d) and (4). Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-395
Russell Jim	CWC	5. Edit Addendum C, Section C.1.1 to include details of design of storage modules to demonstrate compliance with requirements for ignitable, reactive, and corrosive dangerous or mixed waste management. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	6. Edit Addendum C, Section C.1 to reflect compliance with WAC 173-303-630(9) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	7. Edit Addendum C, Section C.1 to reflect compliance with WAC 173-303-630(11) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	8. For these units, include Permit condition requiring compliance with WAC 173-303-630(11).	This permit conditions is part of the Unit Specific Permit Conditions for CWC.
Russell Jim	CWC	9. For these units, include Permit condition defining in operational days exactly what is expected to be understood as timely manner as necessary to prevent overflow to remain in compliance with WAC 173-303-630(7)(a)(ii).	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	10. Include Permit condition restricting dangerous and/or mixed waste treatment from being performed within the Flammable and Alkali Metal Waste Storage Modules.	Addendum B (WAP) addresses the types of treatments that may be used at CWC. Addendum C (Process Information) addresses the work planning process that must be completed prior to the treatment of waste at any CWC location. This addendum further identifies CWC facilities where treatment may be performed.
Russell Jim	CWC	11. Edit Addendum C, C.1.2 all Sections to reflect compliance with WAC 173-303-630(2 thru 6) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.

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Russell Jim	CWC	12. Edit Addendum C, C.1.2 all Sections to state and reflect required compliance with WAC 173-303-630(7). Include detail description of underlying base to clearly demonstrate compliance with WAC 173-303-630(7)(a) & (b). Identify compliance measures. Include the following requirements: • Permit condition limiting to 50 percent of floor areas of the container storage to be occupied by containers at any one time.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	13. Edit Addendum C, C.1.2 all Sections to state and reflect required compliance with WAC 173-303-630(8)(a)&(b). A statement such as The foundation is integrated into a perimeter concrete curb and ramps are across the curb for loading and unloading operations. The floors are coated with an epoxy resin floor surfacing system that is compatible with the stored waste does not satisfy or ensure compliance with these requirements nor does it preclude spills from affecting other containers. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	14. Edit Addendum C, C.1.2 all Sections to state and reflect required compliance with WAC 173-303-630(9) for all waste storage buildings or areas. Include detail description. Identify compliance measures.	Addendum C (Process Information) addresses how all dangerous waste will be managed in accordance with the requirement of WAC 173-303-630.
Russell Jim	CWC	15. Edit Addendum C, C.1.2 all Sections to state and reflect required compliance with all requirements of WAC 173-303-395. Sections of C.1.2 are lacking the detail description of how waste is managed in a manner which is compliant with and prevents situations listed in WAC 173-303-395(1)(a) thru (d) and (4). Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-395.
Russell Jim	CWC	16. Edit Addendum C, C.1.2 all Sections to state and reflect required compliance with all requirements of WAC 173-303-160 and 161. Sections of C.1.2 are lacking the detail description of how treatment of dangerous and/or mixed waste will be performed within the assigned buildings. Identify compliance measures.	Addendum B (WAP) addresses the types of treatments that may be used at CWC. Addendum C (Process Information) addresses the work planning process that must be completed prior to the treatment of waste at any CWC location. This addendum further identifies CWC facilities where treatment may be performed.
Russell Jim	CWC	17. Edit Addendum C, C.1.2 all Sections to reflect compliance with WAC 173-303-630(11) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.

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Russell Jim	CWC	18. For these units, include Permit condition requiring compliance with WAC 173-303-630(11).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.
Russell Jim	CWC	19. For these units, include Permit condition defining in operational days exactly what is expected to be understood as timely manner as necessary to prevent overflow to remain in compliance with WAC 173-303-630-(7)(a)(ii).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.
Russell Jim	CWC	20. Edit Addendum C, C.1.3 all Sections to reflect compliance with WAC 173-303-630(2 thru 6) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.
Russell Jim	CWC	21. Edit Addendum C, C.1.3 all Sections to state and reflect required compliance with WAC 173-303-630(7). Include detail description of underlying base to clearly demonstrate compliance with WAC 173-303-630(7)(c). Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630..
Russell Jim	CWC	22. Edit Addendum C, C.1.3 all Sections to reflect compliance with WAC 173-303-630(11) for all waste storage units. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.
Russell Jim	CWC	23. Edit Addendum C, C.1.3 all Sections to reflect requirement under WAC 173-303-815(2) Omnibus Authority to comply with WAC 173-303-630(7)(a)(i), (ii), and (iii) in addition to WAC 173-303-630(7)(c). Recent spill issues [e.g., Box 231-Z-DR-11] at CWC defensibly warrant a more stringent regulatory compliance.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630. Engineered drawings for any unit with secondary containment have been reviewed and are compliant with the requirements in WAC 173-303-630(7).
Russell Jim	CWC	24. For these units, include Permit condition defining in operational days exactly what is expected to be understood as timely manner as necessary to prevent overflow to remain in compliance with WAC 173-303-630-(7)(a)(ii).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630.
Russell Jim	CWC	25. For these units, include Permit condition to ensure if any leakage/spill is noted, spill response actions will be performed in accordance with WAC 173-303-145, WAC 173-303-360, and WAC 173-303-610(2)(b)(ii) MTCA Method B clean closure standards. Include Permit condition requiring compliance with WAC 173-303-830 for these instances.	Addendum C (Process Information) addresses proper storage of dangerous wastes in addition, Addendum I (Inspection) addresses activities that need to be performed if a spill is identified. Addendum H (Closure Plan) addresses closure performance standards for closure of all CWC DWMUs. This plan will be revised at the end of operations to reflect any changes that have occurred since issuance.
Russell Jim	CWC	26. For these units, include Permit condition requiring compliance with WAC 173-303-630(11).	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630(11).

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Russell Jim	CWC	27. For these units, include Permit condition restricting dangerous and/or mixed waste treatment from being performed.	Addendum B (WAP) addresses the types of treatments that may be used at CWC. Addendum C (Process Information) addresses the work planning process that must be completed prior to the treatment of waste at any CWC location. This addendum further identifies CWC facilities where treatment may be performed.
Russell Jim	CWC	28. Edit Addendum C, Section C.1.4: Delete this section and require all referenced WAC 173-303 regulations to apply to CWC dangerous waste management units within current CWC boundaries. Include these regulatory requirements in Section C.2.1.1. [This is unauthorized storage of wastes. All identified actions can be safely and efficiently performed within CWC boundaries.]	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303. This addendum clearly addresses that dangerous waste related activities take place within the CWC boundaries.
Russell Jim	CWC	Revise Permit conditions allowing unlimited treatment and 24-hour storage of wastes outside on paved areas and other areas beyond the boundaries of the TSD unit as described in Section C.1.4. This is unauthorized storage of wastes. Any waivers request to provide exceptions to the rule should be denied based on evidence from records which include documents about past spills and leaks, and misdesignation of waste containers.	Addendum C (Process Information) addresses the work planning process that must be completed prior to the treatment of waste at any CWC location. This addendum further identifies CWC facilities where treatment may be performed. Treatments performed must be authorized in Addendum B (WAP) and can only be performed at the authorized treatment locations identified in Addendum C (Process Information). Addendum C (Process Information) also addresses limits on the use of outdoor storage areas, which includes the amount of time waste may be stored.
Russell Jim	CWC	30. Edit Addendum C, Section C.2 to include required management and packing of containers to comply with WAC 173-303-160 and -161.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-160 and -161.
Russell Jim	CWC	31. Edit Addendum C, Section C.2.1.2 to include required compliance with WAC 173-303-630(5) & (6). Include detail description and identify compliance measures within this section. Include details on safety precautions during manual recapping of filled containers and complies with WAC 173-303-630(5) requirements. Include details on container (drum) row width.	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630.
Russell Jim	CWC	32. Addendum C, Section C.2.2 to reflect requirement under WAC 173-303-815(2) Omnibus Authority to comply with WAC 173-303-630(7)(a)(i), (ii), and (iii) in addition to WAC 173-303-630(7)(c). Recent spills and container integrity issues at CWC defensibly warrant a more stringent regulatory compliance.	Addendum C (Process Information) addresses proper storage of dangerous wastes in addition, Addendum I (Inspection) addresses activities that need to be performed if a spill is identified. Addendum H (Closure Plan) addresses closure performance standards for closure of all CWC DWMUs. This plan will be revised at the end of operations to reflect any changes that have occurred since issuance.

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Russell Jim	CWC	33. Edit Addendum C, Section 2.2 to include clarification that containers with liquids are also subject to WAC 173-303-140(4)(b) requirements.	All dangerous waste managed in CWC DWMUs will be managed in accordance with WAC 173-303-140. Addendum B (WAP) addresses compliance with all LDR Requirements.
Russell Jim	CWC	34. Edit Addendum C, Section 2.2.1 to reflect previous comments regarding secondary containment systems.	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630(7).
Russell Jim	CWC	35. Use of portable secondary containment is allowable however, statements that when dangerous waste is being managed in the building, the floor areas are coated with epoxy resin; or possible use of individual spill containment pallet/skids; or vented, self-contained catch basins under storage floor; or that containers may be elevated to protect containers from contacting accumulated liquids does not suffice or ensure compliance with WAC 173-303-630 or other WAC 173-303 requirements for container secondary containment system design and operations. Include details of sump designs and maximum volume containment. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630(7). Engineered drawings for any unit with secondary containment have been reviewed and are compliant with the requirements in WAC 173-303-630(7).
Russell Jim	CWC	36. Edit Addendum C, Section 2.2.1 to include required compliance with WAC 173-303-320 and WAC 173-303-380(1)(e). For all these units, include Permit condition defining in operational days exactly what is expected to be understood must remedy any problems revealed to remain in compliance with WAC 173-303-630-(7)(a) and WAC 173-303-320(3).	Addendum C (Process Information) and Addendum I (Inspection) have been reviewed and edited to ensure compliance with WAC 173-303-630 and -320.
Russell Jim	CWC	37. Edit Addendum C, Section 2.2 to include details of how the portable secondary containment will ensure compliance with WAC 173-303-630(7)(a)(iii) for containers stored in Storage Areas A, B, C, E, and F.	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630(7). Engineered drawings for any unit with secondary containment have been reviewed and are compliant with the requirements in WAC 173-303-630(7).
Russell Jim	CWC	38. Edit Addendum C, Table C.1 to include identification of current volumes of waste currently stored in each unit.	CWC is an operating unit, thus storage volumes of dangerous and mixed waste are not static. Updates to storage volumes are provided monthly via project meetings.
Russell Jim	CWC	35. Edit Addendum C, Section C.2.2.3 to include requirement for compliance with WAC 173-303-630(7)(a) & (b) and ensure uncovered storage areas are capable of holding at minimum, the additional volume that would result from a maximum twenty-five year storm of twenty-four hours duration.	Addendum C (Process Information) has been reviewed and edited to address the requirements in WAC 173-303-630(7) (a) & (b).

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Russell Jim	CWC	39. Edit Addendum C, Section C.2.2.3 to require sampling and analysis of all accumulated liquids. It is difficult to clearly demonstrate that accumulated liquids are only accumulated rainwater/snowmelt, and that it is uncontaminated, at least by visual and pH tests. For example, contamination with organic constituents, and a number of metals could be present above levels of concern, yet not be discernible via visual means or pH screening. Edit line 44 to delete water and state liquids. Include required compliance with WAC 173-303-145, -360, and detail description of how liquids will be stored and disposal path. Edit Addendum J as needed to include these requirements. Include Permit condition defining in operational days exactly what is expected to be understood temporarily store it as sites that are protective of human health and the environment, etc to remain in compliance with WAC 173-303-630-(7)(a) and WAC 173-303-145.	Addendum C (Process Information) has been edited to ensure compliance with WAC 173-303-145, -360, and -630. Addendum B (WAP) addresses analytical requirements for all waste being generated or characterized including free liquids and accumulated liquids.
Russell Jim	CWC	36. Edit Addendum C, Section C.2.2.3 to include requirement for compliance with WAC 173-303-110.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-110.
Russell Jim	CWC	37. Edit Addendum C, Section C.2.2.3 to include requirement for compliance with WAC 173-303-380(1)(c) and (f).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-380(1)(c) and (f).
Russell Jim	CWC	40. Edit Addendum C, Section C.2.3 to include requirement for confirmatory sampling, etc. See previous comments on Section 2.2.3. Include detail description. Identify compliance measures.	Addendum C (Process Information) has been edited to ensure compliance with WAC 173-303-145, -360, and -630. Addendum B (WAP) addresses analytical requirements for all waste being generated or characterized including free liquids and accumulated liquids.

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Russell Jim	CWC	41. Edit Addendum C, Section C.2.3.1 to require sampling and analysis of all accumulated liquids. It is difficult to clearly demonstrate that accumulated liquids are only accumulated rainwater/snowmelt, and that it is uncontaminated, at least by visual and pH tests. For example, contamination with organic constituents, and a number of metals could be present above levels of concern, yet not be discernible via visual means or pH screening. Edit line 44 to delete water and state liquids. Include required compliance with WAC 173-303-145 and detail description of how liquids will be stored and disposal path. Edit Addendum J as needed to include these requirements. Include Permit condition defining in operational days exactly what is expected to be understood temporarily store it as sites that are protective of human health and the environment, etc to remain in compliance with WAC 173-303-630-(7)(a) and WAC 173-303-145.	Addendum C (Process Information) has been edited to ensure compliance with WAC 173-303-145, -360, and -630. Addendum B (WAP) addresses analytical requirements for all waste being generated or characterized including free liquids and accumulated liquids.
Russell Jim	CWC	38. Edit Addendum C, Section C.2.3.1 to include requirement for compliance with WAC 173-303-110.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-110.
Russell Jim	CWC	39. Edit Addendum C, Section C.2.3.1 to include requirement for compliance with WAC 173-303-380(1)(c) and (f).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-380(1)(c) and (f).
Russell Jim	CWC	42. Edit Addendum C, Section C.2.3.2 to require sampling and analysis of all accumulated liquids. It is difficult to clearly demonstrate that accumulated liquids are only accumulated rainwater/snowmelt, and that it is uncontaminated, at least by visual and pH tests. For example, contamination with organic constituents, and a number of metals could be present above levels of concern, yet not be discernible via visual means or pH screening. Edit line 44 to delete water and state liquids. Include required compliance with WAC 173-303-145 and detail description of how liquids will be stored and disposal path. Edit Addendum J as needed to include these requirements. Include Permit condition defining in operational days exactly what is expected to be understood temporarily store it as sites that are protective of human health and the environment, etc to remain in compliance with WAC 173-303-630-(7)(a) and WAC 173-303-145.	Addendum C (Process Information) has been edited to ensure compliance with WAC 173-303-145, -360, and -630. Addendum B (WAP) addresses analytical requirements for all waste being generated or characterized including free liquids and accumulated liquids.
Russell Jim	CWC	40. Edit Addendum C, Section C.2.3.2 to include requirement for compliance with WAC 173-303-110.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-110.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	41. Edit Addendum C, Section C.2.3.2 to include requirement for compliance with WAC 173-303-380(1)(c) and (f).	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-380(1)(c) and (f).
Russell Jim	CWC	43. Edit Addendum C, section C.3 to include detail description of the administrative controls to be used to ensure compliance with WAC 173-303-630(9)(c). Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-630(9)(c).
Russell Jim	CWC	44. Edit Addendum C, Section C.3.1 & 3.2 to include requirements for compliance with WAC 173-303-161(5) and WAC 173-303-630(4) & (8). Include detail description. Identify compliance measures.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-161(5) and -630(4) & (8).
Russell Jim	CWC	45. Edit Addendum C, Section C.3.3 to include how any reused or reconditioned container will comply with WAC 173-303-160 requirements.	Addendum C (Process Information) has been reviewed and edited to ensure compliance with WAC 173-303-160.
Russell Jim	CWC	46. Edit Addendum C, Section C.5.1 references to increased storage capacity requests. Until the CWC is 173-303-630 compliant, expansion of storage would be unauthorized under Dangerous Waste Regulations.	Addendum C (Process Information) has been reviewed and edited to identify when permit modifications are required and ensure compliance with WAC 173-303-630.
Russell Jim	CWC	47. Edit Tables C.1 & C.2: Rectify inconsistencies Addendum floor area descriptions and other discrepancies in secondary containment capacities. Rectify inconsistencies between Table C.1 & C.2 regarding maximum total volumes and Addendum text. Example: 2403-WD has secondary containment capacity of 312000 liters listed in Table C.2. Table C.1 footnote states maximum volume for these waste types listed above will not exceed 10 time the corresponding secondary containment capacity listed in Table C.2 (5,460,000 liters* in table C.1 vs. 312,000 liters in Table C.2). Any modifications for an increase in storage capacities should be denied until accurate volumes of secondary containment capacity are established. Calculation of unavailable space due to segregation (e.g., berms, aisle space, etc) should be subtracted from what is considered waste management and secondary containment available area.	Tables related to Dangerous Waste Management Unit aerial size and storage capacity within Addendum C (Process Information) have been edited for accuracy and consistency.
Russell Jim	CWC	48. Edit Addendum B to include these new Addendum C requirements as needed.	Addendum B (WAP) has been reviewed and edited for accuracy and consistency with requirements in other CWC permit addenda
Russell Jim	CWC	1. Edit Addendum F to include compliance with WAC 173-303-340 requirements.	Addendum F (Preparedness and Prevention) has been reviewed and edited to ensure compliance with Preparedness and Prevention requirements of WAC 173-303-340.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	2. Edit Addendum F to specifically cite [as appropriate given the event] WAC 173-303, -145, -350, -360, -610, -645 as the regulatory requirements for management of spills.	Addendum F (Preparedness and Prevention) has been edited to include all requirements of WAC 173-303-340 (Preparedness and Prevention).
Russell Jim	CWC	1. Edit Addendum G to include title and hotlink to reference for public access to document: Refer to the CWC Dangerous Waste Training Plan for a complete description of coursework in each training category.	Addendum G (Personnel Training) has been edited to include all requirements of WAC 173-303-330 (Personnel Training).
Russell Jim	CWC	2. Edit Addendum G Training Category Matrix Table as follows to include additional requirements. Training Category* Permit Attachment 5 Training Category General Hanford Facility training Contingency Plan training Emergency Coordinator training Operations Training CWC DWTP implementing plan Orientation Program Emergency Response (contingency plan) Emergency Coordinator training General Waste Management Container Management Job title/position Regulatory Compliance Staff X X X X Nuclear Chemical Operator X X X X Environmental Compliance Officer X X Operations Supervisor X X X X X Resident Waste Service Provider X X X Non-Resident Sampler X X X	Addendum G (Personnel Training) has been edited to include all requirements of WAC 173-303-330 (Personnel Training).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	1. Addendum H does not satisfy all requirements of WAC 173-303-806(4)(xiii). The Part B Application requires submittal of a Closure Plan and Post Closure Plan which complies with WAC 173-303-610(3) and -610(8). Specific requirements of WAC 173-303-630(10), and WAC 173-303-806(4)(b) must also be demonstrated.	CWC Addendum Hs (Closure Plan) have been developed that address all of these concerns and are compliant with WAC 173-303-610, -630 and -860. There is no post closure plan at present. This will be addressed at final closure of the unit.
Russell Jim	CWC	2. Soil Closure Performance Standards under WAC 173-303-610(2) [i.e., MTCA Method B cleanup values] are required to be identified by Ecology and included in the Permit.	Closure Performance standards under WAC 173-303-610(2) have been met for closure of all CWC dangerous waste management units.
Russell Jim	CWC	3. Edit statement If contaminated soils are encountered, or if it is not possible to demonstrate there are no pathways for dangerous wastes or constituents to underlying soils, this circumstance will be considered an unexpected event for closure requiring a modification to the plan pursuant to Permit Condition II.J. Delete text to state If contaminated soils are encountered, they are subject to WAC 173-303-610(2)(b)(i)cleanup standards and will be RTD.	CWC Addendum Hs (Closure Plan) have language to address a path forward if contaminated soils are encountered.
Russell Jim	CWC	4. Edit Section H.2.2 to require sampling of the soils underlying the buildings. The coated concrete floors have not demonstrated they are RCRA compliant secondary containment.	Closure Performance standards under WAC 173-303-610(2) have been met for closure of all CWC dangerous waste management units.
Russell Jim	CWC	3. Edit Addendum H to include text as needed to provide details [e.g., name of TSD disposal unit] of the management of containers filled with waste as a result of various closure actions for these facilities.	CWC Addendum Hs (Closure Plan) have been edited and revised to include detailed information as required by WAC 173-303-610.
Russell Jim	CWC	4. Edit Addendum H to include text as needed to ensure all “disposals” are in a RCRA compliant facility includes meeting LDR requirements of WAC 173-303-140.	CWC Addendum Hs (Closure Plan) have been edited to include text that identifies all waste to be disposed will be done in accordance with WAC 173-330-140 (Land Disposal Restrictions)
Russell Jim	CWC	5. Edit Addendum H 3 Closure Standards for Underlying Soils (and elsewhere as needed) to include text that in addition to EPA/240/B-01/003 (EPA/QA R-5), EPA Requirements for Quality Assurance Project41 Plans, as amended, the sampling and analysis plan will be consistent with Ecology Publication #94-111, Guidance for Clean Closure of Dangerous Waste Units and Facilities as amended.	CWC Addendum Hs (Closure Plan) address both EPA and Ecology sampling and analysis requirements. They and are consistent with Ecology guidance documents.
Russell Jim	CWC	6. Ensure the Sampling and Analysis Plan to be consistent with Ecology Publication #09-05-007.	CWC Addendum Hs (Closure Plan) and Sampling and Analysis Plans are consistent with the cited Ecology guidance document.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	CWC	7. Revise Addendum H, to state: If it is not possible to meet the clean debris surface standard or the piping or ancillary equipment cannot be inspected, those portions of the piping and ancillary equipment will be removed, designated, and disposed of according to WAC 173-303-610(2(b(i)and 173-303-140 requirements.	CWC Addendum Hs (Closure Plan) have been edited and revised to include the closure requirements as identified in WAC 173-303-610 and -140.
Russell Jim	CWC	8. Edit Addendum I, Pg. 8, line 5, Section I.1.3 to ensure compliance with WAC 173-303-320(2)(d) requirements with regards to identification of the date and nature of any repairs or remedial actions taken throughout the facilities(CWC) to be included in the inspection log(s). Edit subsections as needed to also reflect this compliance.	Addendum I (Inspection) has been revised to meet the WAC requirements cited.
Russell Jim	CWC	9. Edit Addendum I to include an Attachment with example of the checklist used by the qualified inspector	Addendum I (Inspection) has been edited and revised to meet the inspection requirements as identified in WAC 173-303-320.
Russell Jim	CWC	10. Edit for clarity, Addendum J to ensure compliance with WAC 173-303-340(3) is maintained and consistency with Addendum F.	Addendum J (Contingency Plan) has been revised to meet the WAC requirements cited and is consistent with Addendum F (Preparedness and Prevention).
Russell Jim	CWC	11. Edit Addendum J to require written recovery plan to be developed as an Attachment to Addendum J (i.e., prior to). Suggest use of WAC 173-303-815 omnibus authority as support to ensure compliance with WAC 173-303-360(2)(f) thru (i) and (k)(ix).	Addendum J (Contingency Plan) has been revised to meet the WAC requirements cited.
Russell Jim	CWC	12. Revise Addendum J, to include required compliance with WAC 173-303-350(5) in addition to Permit Attachment 4.	Addendum J (Contingency Plan) has been revised to meet the WAC requirements cited.
Russell Jim	T-Plant	1. This facility has similar issues as the CWC, WRAP, & other LLBG operating units. Review comments for these units and edit/revise the T-Plant facility permit as necessary to comply with WAC 173-303 requirements as indicated and requested in the CWC, WRAP, & other LLBG operating units.	The T Plant Complex is part of the Solid Waste Operations Complex (SWOC) and is included in the Rev. 9A Permit. All addenda for this unit were revised for Rev. 9A to address 2012 public comment and ongoing regulatory compliance review.
Russell Jim	T-Plant	2. Modify the Permit condition (III.9.0.4.d) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes.	Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	WESF	1. Include specific and detailed Permit conditions requiring annual physical assessment of the soundness of this facility under WAC 173-303-815(2) authority.	Comment responded to in Ecology Publication no. 20-05-022 (Comment #747): Ecology is issuing this draft permit modification to support the movement of the capsules in the WESF Pool Cells to dry storage. Therefore, this public comment is no longer applicable and has been overcome by advances in the project schedule. The movement of the capsules will eliminate the need to conduct ongoing evaluations on the integrity of the pool cells.
Russell Jim	WESF	2. Bring WESF into RCRA compliance by moving the capsules into dry cask storage and close the facility in compliance with WAC 173-303-610(3). Include permit conditions to ensure compliance with WAC 173-303-610.	Comment responded to in Ecology Publication no. 20-05-022 (Comment #748): The Permittees have been authorized to construct a new Operating Unit Group, Capsule Interim Storage, which will be used for dry storage of the capsules. Once capsules have been transferred initial closure activities can begin at the WESF.
Russell Jim	WESF	3. Include a Permit condition bounding the acceptance of additional waste at WESF, due to the fact that WESF is currently at capacity and cannot handle additional waste volume.	Comment responded to in Ecology Publication no. 20-05-022 (Comment #749): Addendum B, Waste Acceptance Plan, does not provide any authorized mechanism for receiving new waste at the WESF. Permit conditions allow for the storage of the specific wastes identified in Addendum C and do not authorize receipt or storage of any new wastes, even if they would be compatible with the capsules.
Russell Jim	WRAP	1. Modify the WRAP Permit condition (III.7.0.4.b) to reflect compliance with Building and Structural Specialty and Fire Code requirements and Secondary Containment volumes.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
Russell Jim	WRAP	2. Include a Permit condition requiring characterization of all waste streams processed in the WRAP facility.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
Russell Jim	WRAP	3. Include/revise a Permit condition to include the function of the WRAP facility is to package TRU waste for shipment to WIPP, and that mixed waste can have TRU components and be identified as mixed TRU waste or MTW.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	WRAP	4. Include a Permit condition or revise the WAP to include a detailed list/document of the criteria and the methodology for determination of the presence of liquids in the wastes.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
Russell Jim	WRAP	5. Include/revise a Permit condition to include criteria on how to obtain representative samples from a drum containing multiple containers of waste which lack identified/associated process information.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
Russell Jim	WRAP	6. Include/revise a Permit condition for the following concerns or revise the Sections B.1.1.1; B.1.1.1.2 ; B.1.1.1.2.2 ; B.2.1.3.1 ; B.2.1.1.3.1; B.2.1.3.3; B.7.3 (of the WRAP Facility Waste Analysis Plan: a. Clarify the range of dangerous chemicals and the various methods of chemical screening. b. Clarify how people on the evaluations committee determine what to sample and which sample methods to use. c. Require the Permittee to clearly identify the range of dangerous chemicals and the various waste streams within the packages to be in compliance with the Dangerous Waste Regulations. d. Clearly identify who has the responsibility to designate the waste to certify that it meets LDR standards. e. Clarify that the “20% rule” should only be applied to where it is absolutely known that the material inside the drums is exactly the same. Require sampling of 20% of drums. f. Clarify the representativeness of the drum sampling from a package on the top of a drum and the packages located near the bottom of the drum. g. Include treatment of peroxides, oxidizers, sulfides, cyanides, and halogenated organic carbon in addition to grouting.	WRAP has been transitioned to a Closure Unit Group and no longer accepts waste. Permit conditions and addenda for this unit have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.
Russell Jim	WRAP	7. Include/revise Permit conditions for issues similarly identified in the CWC, LLBG, and T-Plant draft permits [see specific comments for these other units].	Permit conditions and addenda for these units have been extensively revised. The revised document will be provided for public comment with the Draft Rev 9A Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1324-N	1. Groundwater contamination and other issues associated with the facility suggest that it has not been closed appropriately under the regulations. Place this unit in Part V rather than Part VI and include Permit conditions to ensure compliance with WAC 173-303-610,-645, and WAC 173-303-650.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Russell Jim	1324-N	2. Include/revise permit conditions to ensure the following wells are included in the Groundwater monitoring plan: Wells: 199-N-71, -72, -73, -77, 199-N-165, 199-K-182, 199-N-189, AND 199-K-164. Require non-filtered sampling.	A permit condition is not necessary to include the requested information. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1324-N	3. Include/revise permit conditions to ensure sampling for field parameters, VOA, SVOA, PAH, TPH-G, TPH-D, metals (full suite of RCRA metals), anions, and alkalinity. Sample for TOC.	A permit condition is not necessary to include the requested information. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Russell Jim	1324-N	4. Include permit requirement for a test pit or borehole to determine if contaminated vadose zone occurs beneath the 1324-N waste site.	Ecology reviewed the closure sampling that was completed for the DWMUs and found that no contamination was left in the vadose zone. Ecology reviewed all of the results and determined a characterization borehole was not needed. The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for “clean closure.” A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1324-N	5. See comments on 1301-N and 1325-N. Address similar concerns in this permit.	The U.S. Department of Energy (USDOE) has been monitoring groundwater from the early 1990s to present day, and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December 2016 with no detections in groundwater. No dangerous waste exceeds MTCA Method B at these two DWMUs. The default closure performance standards established under WAC 173-303-610 have been met, allowing for "clean closure." A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1324-N and 1324-N/A were closed out of the Hanford Site-wide Permit, Rev. 8C April 25, 2017.
Russell Jim	PUREX	1. Remove, treat, and dispose the materials in the PUREX tunnels as required to comply with the Dangerous Waste regulations-WAC 173-303. Write Permit conditions requiring clean-closure of the PUREX Tunnels.	The PUREX Tunnels will be closed in coordination with CERCLA 200-CP-1 OU. Options for closure are described in detail in PUREX (CUG 25) Addendum H, Appendix H-E of the draft Rev 9A permit.
Russell Jim	PUREX	2. To ensure compliance with WAC 173-303, include Permit conditions that require the characterization and treatment of mixed-wastes in the PUREX tunnels and their volumes and proper disposal of the treated waste in licensed, lined, compliant disposal facilities	Due to the highly radioactive nature of the wastes, more harm to human health and the environment would potentially occur by characterizing the waste in more detail. After the 2017 collapse of Tunnel 1, the waste that remained in both tunnels was grouted in place to prevent any possible exposure. The waste will remain grouted in place until final closure is determined.
Russell Jim	PUREX	3. To ensure compliance with WAC 173-303, expand the contaminant of concern (COC) list to include lead.	Large quantities of lead were used for shielding in the PUREX Canyon. The lead shielding was moved to the PUREX Tunnels until a future disposition option could be decided on per the site treatment plan. At Hanford, the Tri-Party Agreement (TPA) satisfies the site treatment plan requirement. The lead currently stored in the PUREX Tunnels is stored in a safe and compliant manner according to the requirements of the permit and managed according to the requirements of the LDR report. Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the Permit, the FFCA, and the TPA.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	PUREX	4. To ensure compliance with WAC 173-303-140, include Permit conditions for the treatment lead in accordance with land disposal requirements and restrictions.	The lead currently stored in the PUREX Tunnels is stored in a safe and compliant manner according to the requirements of the permit and managed according to the requirements of the LDR report. Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the Permit, the FFCA, and the TPA.
Russell Jim	PUREX	5. To ensure compliance with WAC 173-303, include Permit conditions that require secondary containment and leak detection and monitoring.	Due to the highly radioactive nature of the wastes, more harm to human health and the environment would potentially occur by adding secondary containment and leak detection/monitoring equipment. After the 2017 collapse of Tunnel 1, the waste that remained in both tunnels was grouted in place to prevent any possible exposure. The waste will remain grouted in place until final closure is determined.
Russell Jim	PUREX	6. To ensure compliance with WAC 173-303-610(2), reconsider the reliance on water transport and electrical systems over a long period of time to maintain protections such as water doors. Include permit conditions for equipment updates throughout the compliance period.	Ecology does not plan to add any additional permit conditions for PUREX Tunnels but will follow the plans and schedules that are currently enforced through the Permit, the FFCA, and the TPA.
Russell Jim	DST	1. Revise/include a Permit condition for sampling per WAC 173-303-110, the candidate waste feed tanks DSTs. Include requirement to update WAP Addendum to include better justification (e.g., provide study references) of only four representative samples when it is known that there exist more areas of variability within the tanks.	This WAC citation does not appear to apply. Sampling for other DWMUs is performed per the waste analysis plan and DQO for those units, c.f., 242-A Evaporator Addendum B, section B.7.1 Candidate Feed Tank Sampling.
Russell Jim	DST	2. Provide schedule of and identification of candidate waste feed tanks to the 242-A Evaporator.	Sampling for other DWMUs is performed per the waste analysis plan and DQO for those units, c.f., 242-A Evaporator Addendum B, section B.6 Waste Acceptance Process.
Russell Jim	DST	3. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment).	Leak response is now covered in permit conditions III.12.K.9
Russell Jim	DST	4. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645.	Permit requires closure per 173-303-610, which includes conditions related to the characterization described.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	DST	5. Ecology should use its omnibus authority under the Resource Conservation Recovery Act (RCRA) [WAC 173-303-815(2)] to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high-level nuclear waste stored in Hanford's underground radioactive waste tanks. Include a permit condition reflecting this.	Permit reflect agreements with permittees regarding improvements in chemical vapor controls (i.e., NUCON).
Russell Jim	DST	6. Include/revise a Permit(s) condition(s) requiring the construction of new double shell tanks and emptying of the tanks known or suspected of leaking as expeditiously as possible. [we support a 12/31/2019 ready date for these new tanks at the latest.]	Requiring construction of new double shell tanks is not being considered by Ecology at this time.
Russell Jim	DST	7. Revise/include a Permit condition(s) to ensure consistence, integration of operations, and to comply with new, requested and required 242-A Evaporator/LERF/SST permitting conditions. See 242 A Evaporator/LERF/SST comments.	Permit has been extensively rewritten since comment. Integration of DST processes with other units is included in Addendum C.
Russell Jim	DST	8. Revise inspection frequencies: Include a more frequent inspection schedule of the double-shell tanks. We support this periodic inspection to be no less frequent than every four years for each tank, and more frequent for any tank showing significant issues.	Components of the DST system components are inspected per the schedule in Addendum I with the purpose of early detection of potential structural concerns. Overall system structural integrity is assessed and certified per recommendations of previous IQRPE structural integrity assessment.
Russell Jim	Parts I & II	1. Include a Permit(s) condition(s) requiring submittal to Ecology of RCRA groundwater monitoring requirements from all CERCLA documents for incorporation into the units-specific Addenda housing the Groundwater Monitoring Plans. Ecology should require a crosswalk-table which identifies RCRA requirements in the CERCLA documents which are cited in the RCRA Permit and subject to WAC 173-303-830/840 process.	Ecology's authority extends only to RCRA and we cannot require the Permittees to provide CERCLA documentation for Groundwater Monitoring Plans.
Russell Jim	Parts I & II	2. Until such time that Ecology has accepted the modeled results from the STOMP-1D code according to criteria in the Dangerous Waste Regulations, Ecology should require and incorporate unit-specific groundwater monitoring into the TSD Permit(s) in compliance with WAC 173-303-610(2)(b)(i) requirements.	Ecology incorporated groundwater monitoring requirements through permit conditions II.F, and through regulatory requirements under WAC 173-303-645 in which the Permittees submitted updated Groundwater Monitoring Plans into their unit group.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	3. Include/revise a Permit(s) condition(s) to ensure the Permittee complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of contamination.	Addenda D, "Groundwater Monitoring Plans" are incorporated by reference into the Hanford Site-wide Permit and include requirements under WAC 173-303.
Russell Jim	Parts I & II	4. The Permit requires the Permittee to supply “a sufficient number of groundwater monitoring wells, and (to) add new wells as necessary to catch contaminants movement in the groundwater and identify compliance status,” the number of usable wells on the Central Plateau is rapidly decreasing due to the dropping Water Table. Revise/include Permit(s) condition(s) requiring a sufficient number of monitoring wells be sited according to subsurface studies that identify suitable thick intervals of wetted aquifer to support groundwater monitoring into the future.	Ecology uses the TPA milestone series M-24 to ensure that a sufficient number of monitoring wells be sited. A permit condition would be redundant to the requirement in the M-24 series.
Russell Jim	Parts I & II	5. Revise/include a Permit(s) condition(s) requiring Groundwater Monitoring Plan(s) to require identification of the number and location (and criteria for determining these) of groundwater and leaked waste monitoring wells.	Ecology has already included permit conditions for specific units to require identification of the number and location (and criteria for determining these) of groundwater and leaked waste monitoring wells. For example, Condition V.4.C.1.c.ii in the Single Shell Tank unit conditions requires a data quality objectives (DQO) process. DQOs are the criteria for determining data needs such as well locations and depth, numbers of samples collected, and analytical methods for samples.
Russell Jim	Parts I & II	6. The vadose zone is not present in the Permit(s) groundwater monitoring plans. Include Permit(s) conditions providing for Ecology’s oversight of vadose zone characterization and remediation activities as an important segment of the overall Hanford clean-up schema. Utilize Omnibus Authority under WAC 173-303-815(2) and include a Permit(s) condition(s) requiring characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the Tank Farms and other mixed waste sites on the Hanford site [e.g., Tank Farms].	The vadose zone is present in the Permit, although not in the Permit's groundwater monitoring plans. Permit Condition II.F provides requirements for groundwater and vadose zone monitoring. For example, Condition V.4.c.1.c.ii in the Single Shell Tank (SST) unit conditions requires alternative monitoring within the vadose zone. There are other vadose zone requirements in the SST unit conditions. The 200-DV-1 Operable Unit is the "Deep Vadose Zone" OU, and it is included in the CA-1 part of the permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	7. Ecology is cautioned that the Central Plateau Water Table level decline is making “wet” monitoring wells much harder to find or sustain. Since the Permit states that “Wells that are no longer sampled due to water table decline (i.e., “dry groundwater monitoring wells”), and for which there is no future use, must be decommissioned,” review/ include a Permit(s) condition(s) requiring evaluation of the utility of using these dry groundwater monitoring wells for use in sampling, using pore water geochemical sampling, radiological or geophysical methods prior to decommissioning.	Ecology uses the TPA milestone series M-24 to ensure that a sufficient number of monitoring wells be sited. A permit condition would be redundant to the requirement in the M-24 series. Specific requirements for groundwater wells is included in unit group permit conditions, for example, the Single-shell Tanks includes conditions (V.4.D.3) that address this issue.
Russell Jim	Parts I & II	8. Include a Permit condition to ensure Ecology authority and oversight of all pump & treat systems including how groundwater monitoring wells are installed (compliant with WAC 173-160), utilized and managed.	Requirements and schedules for pump & treat systems would be addressed through work plans provided pursuant to the compliance schedules described in the CA-2 Groundwater Operable Units in the permit. An additional permit conditions would be redundant and potentially in conflict with CERCLA Section 121(e)(1) permit exemption.
Russell Jim	Parts I & II	9. Include a Permit condition requiring the use of a Risk Budget Tool to model cumulative effects to groundwater. This Permit(s) condition(s) should also include requirements for submittal of the parameters used in the Risk Budget Tool and their selection subject to the permit modification process. Do not to base the risk budget tool on non-validated models.	The Risk Budget Tool is only applicable to the Integrated Disposal Facility. Permit Conditions and requirements are included in Operating Unit Group 11, "Integrated Disposal Facility" and any updates to the permit language is subject to the permit modification process.
Russell Jim	Parts I & II	10. The statement that “Ecology, EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed waste groundwater contamination plumes originating from a combination of TSD and past-practice units” is not substantiated within the Dangerous Wastes regulations [WAC 173-303]. This statement does not provide for RCRA groundwater monitoring, nor does it provide for public involvement in important groundwater decisions. Delete this text from the Permit(s). It could be retained in the Fact Sheet.	The statement that “Ecology, EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed waste groundwater contamination plumes originating from a combination of TSD and past-practice units” is a factual statement. Ecology agrees that it does not provide for RCRA groundwater monitoring, but neither does it preclude Ecology from requiring unit-specific groundwater monitoring. Ecology also agrees that the statement does not provide for public involvement in important groundwater decisions, but neither does it preclude such public involvement. Ecology remains committed to appropriate public involvement (as much or more than required by regulation) for important groundwater decisions including CERCLA Records of Decision, TSD closure decisions, and TSD monitoring requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	11. It inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645 corrective action permits requirements.	The II.Y permit condition includes the groundwater units and reflects the 2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050). The II.Y Permit Conditions will be retained.
Russell Jim	NRDWL	1. When the SEPA checklists were submitted with the permit applications, the project specific biological mitigation plan should have been a part of the submittal. Ecology cannot proceed with a final permit unit the SEPA requirements are met and significance of impacts fully known.	Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.
Russell Jim	NRDWL	1. We reiterate the concerns presented in our, comment response letters (dated 8/30/2010 and 2/22/2011)to DOE regarding the interim action environmental assessment for closures of the Non-Radioactive Dangerous Waste Landfill and Solid Waste Landfill (DOE/EA-1707D) and as they were distributed to Washington State Department of Ecology, they remain relevant to closure under WAC 173-303-610 and -665. Foremost is the lack of a final complete design and valid groundwater monitoring plan. The dangerous waste regulations do not authorize closure on a 'conceptual design basis.'	Milestones have been developed to require submittal of the final cover design and associated documents. See the description of the milestones below: A Class 3 permit modification request will be submitted to Ecology per TPA Milestone M-016-210. The permit modification request will include the 90% final cover design, engineering report, maintenance and monitoring plan, and a proposed schedule of these closure activities for the NRDWL/SWL. A Class 3 permit modification request will be submitted to Ecology within 180 days after Ecology's approval of the 90% cover design, per TPA Milestone M-016-211. The permit modification request will include an updated post-closure plan for NRDWL/SWL and an updated Groundwater Monitoring Plan.
Russell Jim	NRDWL	2. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Requirement of submittal of a Part A to correct errors after approval should have resulted in the denial of the permit application. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. A permit condition also may not authorize actions not in compliance with the Dangerous Waste regulations.	The current Rev 9A Sitewide Permit Renewal includes all required information to write a permit. All of the documents going out for public comment for NRDWL have complete submittals.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	NRDWL	3. We have substantive concerns about the use of caps, particularly ET barriers, at the Hanford site. The follow lists major concerns: • Application of this approach will set a precedent for future decisions without clear understanding of the effects of potential failure risks. • Our doubts are reinforced by experiences elsewhere which note the failure of such designs (see reference below). • Use of an "equivalent evapo-transpiration permeability" approach is not acceptable. Declaration that Borrow Area C soils have the required low permeability to meet the RCRA Subtitle C cover standards has not been demonstrated. • Lack of additional mitigation measures (i.e. redundancy of multiple hydrologic barriers). • Lack of mitigation of "Fringe effects" and creation of ephemeral wetlands, site fires and destruction of necessary vigorous vegetation. • Use and failure of Institutional Controls and subsequent consequences to human health and the environment. • Future impacts to the Yakama Nation Cultural Resources and violations of Yakama Nation Treaty Rights (i.e. required updates to the Borrow Area C MOA). References: "Alternative Covers: Enhanced Soil Water Storage and Evapotranspiration in the Source Zone." W.H. Albright, W.J. Waugh, and C.H. Benson, May 2007	The cover for NRDWL will meet the requirements of 173-303-665(6).
Russell Jim	NRDWL	4. We remain concerned with statements that Barrow Area C soils have been designated soils for an ET cover. There has not been an agreed to MOA between the Tribes and DOE stipulating use of these soils. The following statement is misleading to the reader. Delete: An amendment to this MOA has been prepared to reflect the use of the fine-grained soil material at NRDWL/SWL.	No final decisions or agreements have been made regarding the use of the Borrow Source at Borrow Area C. Milestones are in place to ensure the final cover design and associated documents meet regulatory requirements.
Russell Jim	NRDWL	5. We are concern with the new construction laydown area sites and their known impacts to high-quality habitat adjacent to the site will impact our cultural resources.	Prior to any final decisions regarding barrier design and construction, Ecology will be communicating with you and others regarding any potential impacts to the environment and or cultural resources.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	1. FEIS for this TSD unit emphasizes the need for the over-all SEPA determination to be at least a MDNF rather than a DNS.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and updated the SEPA Determination in accordance with WAC 197-11. For more information, please see overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit.
Russell Jim	LLBG Trenches 31/34/94	1. Revise Groundwater monitoring section to state a groundwater monitoring plan will be in compliance with WAC 173-303-645 and -610.	The Fact Sheet address required Rev 9 permit conditions for Trenches 31 & 34. It also states that Trench 94 is exempt from groundwater monitoring requirements.
Russell Jim	Parts I & II	2. Groundwater section has text describing submittal of characterization information which is not included in the Permit conditions.	The Permittees were required to provide compliant groundwater monitoring permit language within Addendum D, "Groundwater Monitoring Plan" for those unit groups under the WAC 173-303-645 requirements. Ecology developed regulatory guidance based on the 173-303 WAC requirements and Washington State Permit Application Guidance 95-402 to ensure the Permittees submitted complete and compliant supplemental information to the Hanford Site-wide Permit, Rev. 9A renewal.
Russell Jim	LLBG Trenches 31/34/94	1. Edit/include a Permit condition(s) to require a groundwater monitoring plan in compliance with WAC 173-303-645,-610, -600, and -665. Include a permit condition(s) requiring the identification of the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Identify dangerous constituents (including lead and mercury), concentration limits, point of compliance, compliance period (at a minimum, it should be specified to be the entire time the permit is in effect – 10 years), and other general groundwater monitoring requirements.	The Unit Specific Permit Conditions address required Rev 9 permit conditions for Trenches 31 & 34. It also states that Trench 94 is exempt from groundwater monitoring requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	2. Edit and include a Permit condition, utilizing Omnibus Authority under WAC 173-303-815 requiring characterization of the vadose zone beneath the trench (Section C.2, "Releases From Trench 94," projects there will be no lead leachate until 600 to 2,000 years. The projection is that it will take hundreds of thousands of years for the lead to reach the Columbia River. Provide details of modeling used to determine how it arrived at "hundreds of thousands of years. Ecology needs data to project movement through the vadose zone and predict when lead will reach the groundwater.).	The Unit Specific Permit Conditions address required Rev 9 permit conditions for Trenches 31 & 34. It also states that Trench 94 is exempt from groundwater monitoring requirements.
Russell Jim	LLBG Trenches 31/34/94	3. Edit and include a Permit condition requiring on-going groundwater well evaluation and deepening wells as the groundwater level drops.	The Unit Specific Permit Conditions address required Rev 9 permit conditions for Trenches 31 & 34. It also states that Trench 94 is exempt from groundwater monitoring requirements.
Russell Jim	LLBG Trenches 31/34/94	4. Edit to revise the Inspection requirements to ensure that the Permittee can demonstrate its ability to maintain oversight of the trenches for the duration of operations.	The Addendum I (inspection) has been edited to include the inspection requirements of WAC 173-303-320.
Russell Jim	LLBG Trenches 31/34/94	5. Edit and include a Permit condition requiring at a minimum, installation of four additional groundwater monitoring wells (two upstream and two downstream).	There are permit conditions which address when modifications to groundwater monitoring plans need to occur.
Russell Jim	LLBG Trenches 31/34/94	6. Include permit condition(s) requiring the Waste Analysis Plan & Sampling and Analysis Plan and criteria for waste acceptance at the LLBG be informed by the results of the Risk Budget Tool. Require impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool.	There are permit conditions which address when modifications to groundwater monitoring plans need to occur. The Risk Budget Tool is only included in the IDF Unit Group Permit, as Ecology and the Permittees agreed that this only applies to that facility.
Russell Jim	LLBG Trenches 31/34/94	7. Include Permit condition to ensure corrective actions to be taken in the event of leaching of contamination from Trench 94 into the groundwater (e.g. The permit admits that lead from Trench 94 is expected to contaminate the Columbia River. Addendum C Section 3.2.1, Containment states that the lifetime of the outer container holding the lead is 500 years for the older reactors, 750 for the newer reactors and an estimated 1,500 to 2,000 years for the newest reactors (These numbers are rounded off for general discussion purposes.) The obvious conclusion is that between 500 and 2,000 years, at least 5,000 metric tons of lead will be exposed to the environment and will be subject to movement into the vadose zone and into the groundwater beneath Trench 94.)	Trench 94 is exempt from groundwater monitoring requirements

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	8. Include a permit condition requiring a modification per WAC 173-3036-830 to the waste acceptance criteria for Trench 94 (and require this permit condition in all LLBG units) prior to acceptance of waste constituents not listed in the waste acceptance criteria.	Trench 94 is exempt from groundwater monitoring requirements
Russell Jim	LLBG Trenches 31/34/94	9. Include text to reflect new permit conditions for modifications to the waste acceptance criteria for specific waste streams or mitigation measures. Include all modifications to the waste acceptance criteria are subject to WAC 173-303-830/840 process.	Addendum B (WAP) addresses these requirements.
Russell Jim	LLBG Trenches 31/34/94	10. Include permit condition requiring compliance with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Addendum B (WAP) addresses these requirements.
Russell Jim	General	1. Utilize the Closure Plans submitted in the Part B application and to write appropriate Closure Permit conditions to rectify any non-compliance with unit specific closure requirements under WAC 173-303.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	2. Ensure the approved closure plan is consistent with unit-specific Dangerous Waste Regulations-WAC 173-303 (ex: Surface Impoundment regulations).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	3. Include approved Closure Plans and/or Permit Conditions within the Permit(s) to ensure compliance with WAC 173-303-610 and unit specific closure requirements. Ecology should not presumptively approve plans that do not yet exist. There is a lack of requirements for submittal of closure plans in the new RCRA Permit(s). Reference to closure actions under non-existent CERCLA document violates DW closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	4. Include Ecology approved and Dangerous Waste WAC 173-303 compliant RCRA Groundwater Monitoring Plans as attachments to unit specific Permits within their Closure Plan Addendums.	Ecology worked with the Permittees on the requirements for Groundwater Monitoring for those unit groups that require Groundwater Monitoring Plans under WAC 173-303-645. In addition, II.F permit conditions, "Groundwater and Vadose Zone Monitoring and Corrective Action for Regulated Units" and Attachment 8, "Inspection and Training Plan for Groundwater Monitoring Wells" provide regulatory requirements for groundwater on the Hanford Site. The most current information is provided in Addendum D, "Groundwater Monitoring Plan" for applicable unit groups.
Russell Jim	General	5. All Addendums identified as “reserved” should include the WAC 173-303 required information in order to be in compliance with the regulations.	Within the Site-wide Permit, some of the unit groups do not require all the addenda for a complete application that complies with WAC 173-303 requirements. For example, the intact containment and secondary containment of hazardous waste at the Waste Treatment and Immobilization Plant Unit Group 10 prevent hazardous waste from interacting with groundwater so a Groundwater Monitoring Plan is not required for this unit.
Russell Jim	General	6. Require all unit-specific groundwater monitoring plans be consistent with Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.	6). All units specific groundwater monitoring plans are consistent with the Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.
Russell Jim	General	7. Include in each unit-specific Permit the full list of COCs as noted or identified in unit- associated draft RI/FS documents previously submitted to Ecology.	Addenda D, "Groundwater Monitoring Plans," contains the approved groundwater monitoring plans for all regulated units in the permit in the unit-specific chapters. All dangerous waste constituents, their concentration limits, points of compliance, and general groundwater monitoring requirements are contained as permit conditions or in the groundwater monitoring plans. In the standard permit conditions, there are requirements for groundwater monitoring in II.F.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	8. Require use of a methods-based approach in the unit-specific Sampling and Analysis Plans.	We agree. Ecology developed Waste Analysis Plan guidance that requires development of Sampling and Analysis Plans. Permit Conditions II.D reinforce the requirements within the Waste Analysis Plan guidance. Since 2012, we have worked with the Permittees to ensure the deficient information is submitted to Ecology to prepare for the revised renewal under revision 9A.
Russell Jim	General	9. Require use of non-filtered sampling in the Sampling and Analysis. Ecology should require repairs and replacement of wells per WAC 173-160.	9). Groundwater samples are taken and analyzed for non-filtered samples. Ecology does require repairs and replacement wells to meet the requirements of WAC 173-160 through WAC 173-303-645(8).
Russell Jim	General	10. Require the unit-specific training plans are included directly within the Training Addenda.	All Operating, Closure and Post-Closure unit groups require Addendum G, Training Plans. These training plans include general and unit specific training requirements.
Russell Jim	General	11. Coordinate and incorporate RCRA inspection requirements for the unit-specific Permits with those for the associated CERCLA groundwater operable unit's.	Required Addenda I, "Inspection Plan" were revised to reflect all inspection requirements under WAC 173-303-320.
Russell Jim	General	12. Ensure that all unit-specific Closure Schedules are compliant with the Dangerous Waste WAC 173-303-610 requirements or 173-303-815(3)(b)	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	13. Review and revise Part V (closing) Permits to ensure compliance with Land Disposal Restrictions (LDRs).	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.
Russell Jim	General	14. Review and revise Part V (closing) Permits to ensure that non-existent Part II conditions are not cited (e.g.1301-N).	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	15. All RCRA TSDs closure performance standards must use MTCA Method B cleanup levels. Include Permit conditions to ensure closure of a RCRA TSD facility as described in the Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	16. Permit(s) should include compliance schedules in accordance with WAC 173-303-610 closure regulations.	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	17. Include a Permit condition requiring submittal of all RD/RA work Plans to Ecology as subject to WAC 173-303-830/840 Permit modification process.	The revised permit renewal (Rev 9A) includes complete closure plans. At a minimum, closure of the dangerous waste management unit (DWMU) were completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	General	18. Include permit(s) condition(s) for the contingency for additional cleanup should selected remedies, whether carried out under RCRA or CERCLA, prove to be inadequate (e.g., restoration of groundwater as an example).	Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.
Russell Jim	IDF	SEPA: Current determination based on previous submittals. New permits require new evaluations of current conditions. Determination is significant for future. The overall SEPA determination for the Hanford site should be MDNS at a minimum and mitigation measures included in all permits.	Since this comment was received after the 2012 issuance of the Hanford Site permit, Rev. 9, the Permittees completed and issued the TC-WM Environmental Impact Statement (EIS). In August 2020, Ecology issued a SEPA adoption notice to support DFLAW, which included disposal at the IDF. The adoption notice was the new evaluation requested by the commenter. This comment was originally responded to in Ecology Publication no. 21-05-021. Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	1. Unit description statement that additionally, mixed waste generated by IDF operations that meet the IDF waste acceptance criteria, either as generated or after necessary treatment at a dangerous waste management unit other than IDF, will be disposed in IDF is confusing and contradictory statement. It implies that other waste forms than immobilized (vitrified) LAW that meets IDF waste acceptance criteria will automatically be disposed in IDF. Condition III.11.A.2 & others prohibit other waste disposals. Unit description needs editing to reflect permit conditions. Clarify that no off-site waste will be accepted at IDF.	Ecology agrees, this could be clearer. Ecology has added Permit Condition III.11.E (8C.2020.1D and 8C.2022.2.D) to the Unit-Specific conditions. The IDF may accept LLW and MW. The only acceptable MW forms approved for disposal at the IDF landfill cells include ILAW in glass form from the WTP Low Activity Waste (LAW) Vitrification Facility and other waste streams as specified below. • Used WTP low-activity waste melter systems • Secondary solid waste (SSW) from WTP • Solidified SSW from the Effluent Treatment Facility • Fast Flux Test Facility non-liquid waste and demolition waste resulting from decommissioning • Secondary waste (LLW and MLLW) from operations at the Tank Farms and Solid Waste Operations Complex • Non-Comprehensive Environmental Response, Compensation, and Liability Act of 1980, non-tank LLW and MLLW from various onsite generators • Mixed waste generated by IDF operations No other waste forms may be disposed at the IDF unless authorized via a final permit modification decision. Requests for Permit modifications must be accompanied by an analysis adequate for Ecology to comply with State Environmental Policy Act (SEPA), as well as by a risk assessment and groundwater modeling that demonstrates the environmental impact according to the process defined in Permit Condition III.11.E.10 (8C.2020.1D and 8C.2022.2.D). This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	2. Addendum C.2: The leachate collection tanks are best described as Modu-tanks. They do not meet the WAC 173-303 definition of a tank. They do not qualify subject to WAC 173-303-200. Because of their construction [see drawing H-2-830869], they are required to be authorized, through the permit as either subject to WAC 173-303-650 or WAC 173-303-680 requirements. Include Permit conditions to reflect and ensure compliance and operations with either WAC 173-303-650 or WAC 173-303-680 requirements for these 'tanks.'	Ecology agrees that the units for collecting leachate do not meet the regulatory definition for a tank system [WAC 173-303-140]. During our review of the current proposed Class 3 permit modification request by the Permittees, Ecology made the determination that these units do not meet the definition of tank systems, and need to be incorporated into the permit as DWMUs. In letter 20-NWP-047, issued March, 2020, Ecology stated: One final issue that Ecology believes needs to be addressed in the IDF Dangerous Waste Permit is the proper classification of the Leachate Collection Tanks (LCTs). Based on the current technical information, the LCTs should be permitted as Dangerous Waste Management Units (DWMUs) in the IDF Permit prior to the initial receipt of waste. Ecology will add an Interim Compliance Schedule Item and associated completion date into the draft IDF Permit to support the second public comment period for this requested modification. Pursuant to WAC 173-303-806(4)(a), Ecology looks forward to discussing with the Permittees their anticipated schedule for supplying the necessary technical and design details to make the IDF permit modification complete. Ecology has since formalized this decision in a determination letter (20-NWP-157) that the leachate collection system DWMUs will be brought into the IDF permit as miscellaneous units in a future Class 3 modification separate from the current draft permit modification (8C.2020.1D and 8C.2022.2.D). Ecology has included in this current Class 3 modification, 8C.2020.1D, a Compliance Schedule for the submittal of the future Class 3 modification to add the leachate collection system Modu-tanks into the Permit as Miscellaneous Unit DWMUs. This future Class 3 modification must be completed prior to the acceptance of dangerous waste at the IDF. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	1. II.11.A.2: Delete all references to bulk vitrification in the IDF Permit.	The Demonstration Bulk Vitrification System is no longer being pursued for use at the IDF. Ecology will delete references to DBVS in the IDF Permit. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	2. III.11.C.1: Modify the waste acceptance criteria condition or include a Permit condition which ensures IDF only accepts wastes that have been vitrified or whose entire packages have performance equivalent to vitrification.	As listed in Ecology Response to Comment #2 above, the IDF facility is authorized to accept dangerous/mixed waste that satisfies the waste acceptance requirements listed in Addendum. This includes: ILAW in glass form from the WTP Low Activity Waste (LAW) Vitrification Facility; used WTP low-activity waste melter systems; secondary solid waste (SSW) from WTP; solidified SSW from the Effluent Treatment Facility; Fast Flux Test Facility non-liquid waste and demolition waste resulting from decommissioning; secondary waste (LLW and MLLW) from operations at the Tank Farms and Solid Waste Operations Complex; Non-Comprehensive Environmental Response, Compensation, and Liability Act of 1980, non-tank LLW and MLLW from various onsite generators; and mixed waste generated by IDF operations. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	3. II.11.C.4: Edit to identify RCRA facility performing sampling and analysis of leachate. Include reference to permitted RCRA TSD (and the SAP) that will perform sampling and analysis for non-vitrified mixed waste (e.g. treatment residues from treatment of IDF leachate that are returned to IDF for disposal). It is unclear in which permit this information is to be accounted for or how these actions are to be performed.	As listed in the Ecology Response to Comment #3, a Compliance Schedule has been added to the IDF Unit-Specific Permit Conditions to incorporate the leachate collection system Modu-tanks as Miscellaneous Unit DWMUs prior to the first acceptance of dangerous waste at the IDF. Information regarding sampling of the leachate will be included in the modification. Until then, Permit Conditions III.11.F.9.f.i and III.11.F.9.g.iii (8C.2020.1D) will be adhered to at the IDF. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	4. III.11.C.6: Revise permit condition(s) to ensure the process for creating the Risk Budget Tool considers the following parameters; the concentration of contaminants in the waste stream, the waste form leachability, if the releases from that material will exceed groundwater or drinking water protection standards. Include impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool. Do not use a non-validated model and not take credit for the soil column. As Ecology will review modeling assumptions, input parameters, and results of the risk budget tool, it is recommend Ecology seek Tribal/public review and comment input. Include a Permit condition requiring submittal of a set of testing protocols to verify how waste could be released in the future from the waste packages in IDF.	The U.S. Department of Energy submitted the IDF Risk Budget Tool spreadsheet and design document to Ecology on January 7, 2020. On January 21, 2020, USDOE provided a presentation to Ecology on how the tool works and what information could be obtained by using the tool. The RBT tool (excel file) was provided to Ecology to review. In accordance with IDF Permit Condition III.11.E.10.a (8C.2020.1D and 8C.2022.2D), Ecology reviewed the documentation and tool, with an independent review provided by TetraTech, and supplied comments to USDOE to be reflected into future modeling. Ecology took into account the concerns listed in this comment above, and believes these comments were either addressed in the risk budget tool submittal in January or will be addressed in the future modeling. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	5. III.11.K.3: Partial closure is discussed. Delete or clarify text to explain how partial closure in a landfill unit meets final closure requirements of WAC 173-303-610 & 665(6). Partial closure as described is not in accordance with WAC 173-303-610 regulations.	The WAC 173-303-610(3) closure requirements allow for closure of individual dangerous waste management units within a facility. "Partial closure" means the closure of a dangerous waste management unit in accordance with the applicable closure requirements of WAC 173-303-400 and 173-303-600 through 173-303-695 at a facility that contains other active dangerous waste management units. This proposed permit modification will authorize the IDF to operate four dangerous waste management units: two landfill cells, a storage area, and a treatment/storage area. The leachate collection system DWMUs will also be added into the permit as dangerous waste management units through a future permit modification. The requirements for closure of dangerous waste management units are discussed at length in Addendum H, Closure Plan; each DWMU closure is a partial closure of the facility. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	6. III.11.T, III.11.U, III.11.V: Delete, these are unnecessary for this facility.	Ecology will evaluate the need for these permit conditions for Miscellaneous Units and Containment Building Units during future permit modification to incorporate the Modu-tanks of the leachate collection system as Miscellaneous Unit DWMUs into the IDF Permit. This comment was originally responded to in Ecology Publication no. 21-05-021. Update since Ecology Publication no. 21-05-021: Two leachate collection system (LCS) DWMUs have been determined to be best managed as RCRA-permitted storage units as miscellaneous units and added to the IDF Permit in Revision 8C of Hanford Site-Wide Permit through a Class 3 permit modification 8C.2023.2F in 2023.
Russell Jim	IDF	7. III.11.W: Outdated; revise as needed.	The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum D, with current IDF information. Where new addenda were submitted for the IDF Class 3 modification request, 8C.2020.1D and 8C.2022.2D, updated information was received, and the comment is no longer valid. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	8. Revise permit to include a permit condition which requires the leachate collection tanks to be replaced with tanks regulated under the WAC 173-303-640 regulations as a tank system or require these to be regulated under WAC 173-303-650 regulations as surface impoundments. Current design of the IDF leachate collection system indicates this equipment is best described as Modu-Tanks subject to surface impoundment regulations.	As listed in the Ecology Response to Comment #3, this proposed Permit Modification, added a Compliance Schedule to the IDF Permit to incorporate the leachate collection system Modu-tanks as Miscellaneous Unit DWMUs prior to the first acceptance of dangerous waste at the IDF. Permit conditions relating to the leachate collection system DWMUs will be added to the IDF permit during this future Class 3 Permit modification. This comment was originally responded to in Ecology Publication no. 21-05-021. Update since Ecology Publication no. 21-05-021: Two leachate collection system (LCS) DWMUs have been determined to be best managed as RCRA-permitted storage units as miscellaneous units and added to the IDF Permit in Revision 8C of Hanford Site-Wide Permit through a Class 3 permit modification 8C.2023.2F in 2023.
Russell Jim	IDF	9. Revise/include a Permit condition to ensure waste failing the confirmation process (identified as off-specification) have a path forward for disposal and do not remain on-site.	Permit Condition III.11.E.9 (8C.2020.1D and 8C.2022.2.D), ILAW Waste Acceptance Verification, requires the Permittees to submit a verification plan to Ecology six months prior to disposing of ILAW in the IDF. This plan will outline the specifics of verifying ILAW waste acceptance through WTP operating parameters, and/or glass sampling. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	10. Edit Addendum B, Section 5.2.3.2 to discuss why state only LDRs do not require LDR certification information.	WAC 173-303-140(3) – (7) includes the requirements for state-only LDR wastes. There is no requirement to provide a LDR certification for the state-only LDR wastes. The state encourages Permittees to reclaim, recycle, recover, treat, detoxify, neutralize, or otherwise process these wastes to remove or reduce their harmful properties. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	11. Edit Addendum B, Section 5.3 to identify the permitted RCRA TSD that will perform sampling and analysis for non-vitrified mixed waste (e.g. treatment residues from treatment of IDF leachate that are returned to IDF for disposal). It is unclear in which permit this information is to be accounted for or performed.	The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum B, Waste Analysis Plan, which contains unit-specific waste acceptance information and requirements. Addendum B includes a discussion of acceptance of wastes (vitrified and non-vitrified) at the IDF, which includes waste verification and confirmation of waste. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	12. Edit Addendum B, Section 5.3.1.1 to include details of how discrepancies will be resolved.	The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum B, Waste Analysis Plan, which contains Unit-Specific waste acceptance information and requirements. Addendum B includes a discussion of the receipt of waste, including waste discrepancies. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	13. Edit Addendum B, Section 5.3.2 & 5.3.3 to include permit condition or addenda identifying how the generator verifies the waste meets the waste acceptance criteria for disposal at IDF.	This comment is out of the scope of this permit. The IDF facility is responsible for establishing requirements for acceptance of wastes to be disposed at the IDF, and then performs confirmation to ensure that wastes do meet these requirements. This permit does not establish requirements for how the generator must verify the waste meets the waste acceptance requirements for wastes to be disposed at the IDF. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	14. Edit Addendum B, Section 12 to state Off-specification ILAW or other waste forms are not to be stored longer than 90 days without a permit modification.	Permit Condition III.11.E.9 (8C.2020.1D and 8C.2022.2D), ILAW Waste Acceptance Verification, requires the Permittees to submit a verification plan to Ecology six months prior to disposing of ILAW in the IDF. This plan will outline the specifics of verifying ILAW waste acceptance through WTP operating parameters, and/or glass sampling. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	15. Revise Addendum B sections on Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Appendix BA, Quality Assurance Project Plan for IDF Waste Analysis, which contains QA/QC requirements consistent with Ecology Publication #09-05-007. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	16. Edit Addendum C and sub-Addendums to reflect: • Current conditions/processes any resulting data or actions taken. Information presented while good to include, is outdated in most instances. • Confirm all required submittals listed in Table C.1 were reviewed and approved by Ecology. • Discuss any remaining future actions. • State any future response or mitigation actions would be subject to WAC 173-303-830 permit modification regulations. • Edit Section C.2 to include and require compliance with WAC 173-303-650 or WAC 173-303-680 regulations.	1. The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Addendum C, Process Information, which reflects the best information available at this time for operation of the IDF. 2. See Ecology Response to Comment ID #853. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	17. Edit Addenda D and H to reflect the current initial design capacity of 8.2-hectare meters (82,000 cubic meters) as identified on the Part A form.	The Permittees submitted a Class 3 modification to the IDF permit in December 2019. This modification includes an updated Part A form, Addendum D, Groundwater Monitoring Plan, and Addendum H, Closure Plan. The updates reflect the same information in the Part A form and each addendum. This comment was originally responded to in Ecology Publication no. 21-05-021.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	IDF	18. Addendum H: Partial closure is discussed. Delete or clarify text to explain how partial closure in a landfill unit meets final closure requirements of WAC 173-303-610 & 665(6).	The WAC 173-303-610(3) closure requirements allow for closure of individual dangerous waste management units within a facility. "Partial closure" means the closure of a dangerous waste management unit in accordance with the applicable closure requirements of WAC 173-303-400 and 173-303-600 through 173-303-695 at a facility that contains other active dangerous waste management units. This proposed permit modification will authorize IDF to operate four dangerous waste management units: two landfill cells, a storage area, and a treatment/storage area. The leachate collection system Modu-tanks will also be added into the permit as dangerous waste management units through a future permit modification. The requirements for closure of dangerous waste management units are discussed at length in Addendum H, Closure Plan; each DWMU closure is a partial closure of the facility. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	IDF	19. Modeling predicts WTP 2nd waste would have to be significantly mitigated before it could be disposed of at IDF. Include permit conditions to restrict 2nd waste disposal until such mitigation actions are taken.	The WTP secondary waste must meet the waste acceptance requirements for the IDF before being disposed at the IDF. Additionally, all waste to be disposed at the IDF must be proven through the modeling-risk budget tool to not exceed 75% of the state and federal drinking water standards. This comment was originally responded to in Ecology Publication no. 21-05-021.
Russell Jim	General	SEPA: There remain persistent and significant impacts to the groundwater from sources in the vadose zone underlying the 300APT. The current DNS is outdated and unwarranted.	Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal. The 300 Area Process Trenches Unit Group is in post-closure care to address the impacts.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	300A	1. Waste was left in place. The 300 APT unit will require post-closure care and maintenance, and must comply with WAC 173-303-645 for releases from regulated units.	Ecology accepted the certification of closure of the 300 APT in 1998 with the permittee being required to continue to remediate groundwater that was contaminated from the trenches. Per permit condition VI.1.B.1, the Permittees are required to comply with groundwater corrective actions under the CERCLA 300-EPA/ROD/R10-96/143, 1996, Record of Decision for the 300-FF-1 and 300-FF-5 Operable Units, Hanford Site, Benton County, Washington, and Record of Decision Amendment for 300-FF-1 (EPA and DOE, 2013). The permit already requires compliance with WAC 173-303-645 requirements through VI.1.D which requires the Permittees to comply with the requirements in Addendum K, "Post-Closure Plan."
Russell Jim	300A	2. Use of past-practice authority has not proven to be the most efficient way to remediate groundwater plumes of mixed waste from a combination of past-practice treatment, storage, and disposal units. Ecology's earlier "coordination" of corrective action at 300 APT with CERCLA remedial actions has not resulted in compliance with Dangerous Waste regulations –WAC 173-303-283, -610, -or -645 requirements to protect human health or the environment. More stringent facility cleanup standards should be applied.	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD for this action was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. The corrective action for the 300 Area was not and will not be determined by the director of Ecology, but rather by EPA, Ecology, and DOE working together to achieve the best possible remediation of soil and groundwater in the 300 Area through the CERCLA and RCRA process.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	300A	3. WAC 173-303-645-(1)(e) requires the director to determine that it is not necessary to apply the requirements of this section because the alternative requirements will protect human health and the environment. The required determination has not been made as there are no alternative requirements in place. Furthermore, it is inappropriate to prospectively accept CERCLA work via the II.Y conditions as satisfying the Dangerous Waste WAC 173-303-645/646 corrective action permit while the remedy selected remains an unproven technology. [The preferred remedial alternative for the protection of groundwater relies on the application of polyphosphate solution to deeper zones of uranium contamination. Polyphosphate remediation has been previously attempted in the 300 Area and has proven to be both problematic and ineffective. In the event that the polyphosphate application does not reduce the mobility of uranium in the deep subsurface, the proposed alternative specifies that no additional treatment will be applied.]	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD for this action was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. The corrective action for the 300 Area was not and will not be determined by the director of Ecology, but rather by EPA, Ecology, and DOE working together to achieve the best possible remediation of soil and groundwater in the 300 Area through the CERCLA and RCRA process.
Russell Jim	300A	4. Include a Permit condition requiring the RTD for any remaining soils not clean-closed to MTCA Method B standards to ensure compliance with WAC 173-303-283 and the degradation of groundwater quality.	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD for this action was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. The corrective action for the 300 Area was not and will not be determined by the director of Ecology, but rather by EPA, Ecology, and DOE working together to achieve the best possible remediation of soil and groundwater in the 300 Area through the CERCLA and RCRA process.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	300A	5. Include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of the 300 APT) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645. [Use WAC 173-303-815(2)]	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD for this action was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. The corrective action for the 300 Area was not and will not be determined by the director of Ecology, but rather by EPA, Ecology, and DOE working together to achieve the best possible remediation of soil and groundwater in the 300 Area through the CERCLA and RCRA process.
Russell Jim	300A	6. Include a Permit condition to ensure that natural attenuation is not "determined" by the Director of Ecology as meeting the corrective action Permit requirements of WAC 173-303-646.	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD for this action was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. The corrective action for the 300 Area was not and will not be determined by the director of Ecology, but rather by EPA, Ecology, and DOE working together to achieve the best possible remediation of soil and groundwater in the 300 Area through the CERCLA and RCRA process.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	300A	7. Significant exceedances of the Drinking Water Standards for Uranium are noted (approximately 3 to 5 times) in the 300 Area groundwater operable unit Ecology has authority under WAC 173-303-830 to modify the permit and require compliance with WAC 173-303-645(11) for the 300 APT. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(3), (4), (5), (6), (7), and (8). Furthermore, WAC 173-303-645(11)(d) requires establishment and implementation of a groundwater monitoring program to demonstrate the effectiveness of the correction action program. The Permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. The current groundwater monitoring plan is outdated; elements that comprise groundwater protection standards are missing	A thorough CERCLA RI/FS, Proposed Plan, and ROD process (final ROD was issued in November 2013) was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA all the requirements that you mention above in your comment, however, Ecology always reserves the right to require additional work if we are not satisfied with the results or the progress under the CERCLA action.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	300A	8. Include groundwater monitoring Permit conditions based on the requirements of WAC 173-303-645(10). Include the following requirements in the plan for post-closure groundwater monitoring: • The Permittee shall monitor the following 300APT Unit's groundwater monitoring wells: 399-1-10A/B, 399-1-16A/B/C/D, 399-1-17A, B, C, and 399-1-18. In addition to these wells, the following wells shall be sampled quarterly until a compliant well monitoring network is in place: 399-1-1,399-1-3,399-1-7,399-1-4, 399-1-5,399-1-6,399-1-2,399-1-15,399-1-14A/B, and 399-1-11. • The Permittee shall ensure ground water protection standards of WAC 173-303-645(3) are satisfied by complying with conditions specified in this permit to ensure that dangerous constituents under WAC 173-303-645(4) are detected in the groundwater from the 300 Area Process Trenches beyond the 300 APT Unit's point of compliance (as defined in WAC-173-303-645(6)(a)), i.e., a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated unit(s)) during the active life (as defined by WAC 173-303-040) of the 300 Area Unit (including any future waste management activity during the closure period, prior to post-closure care, and during post-closure care and maintenance). • The groundwater monitoring plan shall identify a compliance monitoring period that satisfies WAC 173-303-645(7). • The groundwater monitoring plan shall be submitted within forty-five (45) days of the effective date of this permit. • The groundwater monitoring plan shall be submitted certified pursuant to WAC 173-303-810(12), and -810(13) in accordance with WAC 173-303-830, and -840. • Should the groundwater monitoring network not satisfy the general groundwater monitoring requirements of WAC 173-303-645(8) and (10) the groundwater monitoring plan shall include a schedule which specifies actions and dates by which the groundwater monitoring network will satisfy the general groundwater monitoring requirements of WAC 173-303-645(8) and (10). • The Permittee shall implement the groundwater monitoring plan within forty-five (45) days of receiving Ecology's approval of the plan. • The groundwater monitoring plan required shall include a description of	A thorough CERCLA RI/FS, Proposed Plan, and ROD process was completed for evaluation of 300 Area groundwater and soils and a remedy for groundwater was proposed. The final ROD was issued in November 2013 and this CERCLA process/remedy is currently being implemented by EPA. Ecology worked with EPA on the CERCLA process to be certain that Ecology agrees with the on-going soil and groundwater investigations and characterization efforts, and the proposed remediation for soil and groundwater in the 300 Area. Rather than duplicate efforts, the prudent approach is to adopt this very thorough CERCLA process to satisfy the RCRA requirements. Thus, Ecology is adopting the CERCLA approach to satisfy RCRA all the requirements that you mention above in your comment, however, Ecology always reserves the right to require additional work if we are not satisfied with the results or the progress under the CERCLA action.

Commenter	Unit Group	Comment	Comment Response
		how the effective groundwater flow (contaminant transport) direction will be determined; to establish the point of compliance [per WAC 173-303-645(6)] for the 300 APT. The groundwater monitoring plan will also specify the following: • The location of an upgradient well for the 300 APT will be based on the flow direction determination. • If well 399-1-18 is determined not to be upgradient, a new well cluster will be installed to serve as the upgradient well cluster for the 300 APT. • After determination of the point of compliance, at least two well clusters, in addition to well 399-1-17, will be completed along the point of compliance. • All wells specified in the groundwater monitoring plan shall be cluster wells with one completed at the top of the unconfined aquifer and one at the bottom of the unconfined aquifer. • All wells included in, or resulting from, the groundwater monitoring plan will be sampled at least quarterly (i.e., four samples per year to satisfy WAC 173-303-645(10)) with one sampling during high river seasonal stage and one sampling during low seasonal river stage • For the purposes of satisfying the groundwater monitoring requirements of WAC 173-303-645(8) and (10), statistical comparisons between upgradient well 399-1-18, or other upgradient well identified in the groundwater monitoring plan and downgradient monitoring wells, including 399-1-17 shall be described in the groundwater monitoring plan submitted to Ecology. • The groundwater monitoring plan will specify which 300APT constituents and parameters will be used for statistical comparison. At a minimum, statistical comparison between upgradient and downgradient wells must be performed for the following waste constituents: arsenic, beryllium, chromium, copper, lead, mercury, fluoride, nitrate, nitrite, tetrachloroethene, trichloroethene, trans-1,2-dichloroethene, cis-1,2-dichloroethene, and vinyl chloride. • In addition, alkalinity will be determined in all wells, but will not be used for purposes of statistical comparison. • All groundwater constituents detected during the analysis for constituents will be reported on a quarterly basis. Alternatively, a user friendly, acceptable to Ecology, electronic data interface will be provided that allows access to all groundwater data as it becomes available.	

Commenter	Unit Group	Comment	Comment Response
		• For the purposes of satisfying the groundwater monitoring requirements of WAC 173-303-645(8)(g) and (10)(d), after determining the effective groundwater flow direction, the Permittee shall determine initial upgradient concentrations for the 300 APT specific constituents and parameters by obtaining at least four replicate measurements for each constituent identified quarterly for one year in well 399-1-18 or other upgradient well cluster identified in the groundwater monitoring plan. • The groundwater monitoring plan shall identify the 300 APT specific radionuclides as “waste indicators” or “tracers.” For the purposes of satisfying the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan Section 6.3, the Permittee shall monitor the wells identified on the frequency and in support of the 300-FF-5 groundwater remediation action, the Permittee shall monitor the wells identified in the groundwater monitoring for the following 300 APT waste indicators and/or tracers: gross beta, tritium, and uranium. The groundwater monitoring plan shall specify that statistical comparisons are not required for these waste indicators and/or tracers. • The groundwater monitoring plan shall include, pursuant to WAC 173-303-645(11) a Corrective Action plan for groundwater monitoring of the chlorinated hydrocarbon plume . This Corrective Action plan shall describe how the requirements of WAC 173-303-645(11) will be satisfied, and specify the schedule and requirements. • Within three (3) years of the effective date of this permit the Permittee shall submit a characterization report for the 300 APT chlorinated hydrocarbon plume. This report shall indicate the concentrations and distribution of contaminants in the plume, present and potential impacts to the Columbia River, and shall outline potential remediation measures. • The groundwater monitoring plan shall include a sampling and analysis plan (SAP) which will identify analytical methods and include descriptions of analytical procedures that will be followed for analyzing the 300 APT Unit-specific waste constituents and indicators. The SAP shall specify how all analytical data (i.e., detects, non-detects, tentatively identified compounds, etc.) as reported from the laboratory will be made available to Ecology. • The SAP required shall describe quality assurance/quality control (QA/QC) for sampling and laboratory analysis and will be consistent with consistency with Ecology Publication #09-05-007 [Guidance for Preparing	

Commenter	Unit Group	Comment	Comment Response
		Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]. SAPs will also be required to include the following: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection;	

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		§ Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a	

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		responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; • Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f). This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. • The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code;	

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		§ Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within	

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		thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 300 APT permit. • The groundwater monitoring plan shall specify the following water level measurements criteria. § Each time 300 APT Unit's groundwater monitoring wells are monitored, the ground water surface elevation shall be measured to the nearest 0.01 feet using an electric water level indicator prior to evacuation and collection of samples and immediately after samples are collected. § Water level measurements should be made within one day and as close to one another in time as possible. § All groundwater elevation measurements shall be recorded on a groundwater measurement form. § Prior to the collection of ground water elevation measurements, equipment to be used shall be calibrated in accordance with the manufacturer's instruction and a National Institute of Standards and Technology (NIST) traceable calibration program. § If steel tape equipment is used to measure ground water surface elevations, the operation of the equipment shall first be checked by inserting the probe or contact ends in water to ensure the contact is clearly indicated on the meter. § When ground water elevation measurements are collected, at least two consistent measurements shall be taken. Only clean and/or decontaminated equipment shall be used to collect ground water surface elevations. § A description of how the ground water surface elevation measurements will be taken. § Any corrections needed because a well(s) is not vertical shall be appropriately applied to correct for non-vertical wells. • The groundwater monitoring plan shall specify the following groundwater monitoring well maintenance elements. § Each time 300 APT Unit wells are sampled/monitored; the condition of the wellhead and associated structure will be inspected and recorded. Problems with the pump or the sample (e.g., excessive turbidity) are also	

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		to be noted and the associated repairs are to be made within sixty (60) days according to approved contractor procedures. § Subsurface ground water monitoring well inspection and maintenance shall be performed on a 5-year schedule or as needed to repair problems identified during sampling. § In the event a ground water monitoring well becomes unsuitable for use, the status shall be documented and reported to Ecology within ninety (90) days of identifying the well as unsuitable for use. § In addition, the “unsuitable-for-use” well will be evaluated within thirty (30) days of the designation to determine if a new well should be constructed. A copy of the evaluation shall be provided to Ecology. If applicable, the “unsuitable-for-use” well shall be placed on a well decommissioning candidate list for Ecology’s approval. § In the event an “unsuitable-for-use” well must be replaced to satisfy this permit and WAC 173-303-645 (8) and (10) requirements, the Permittee shall provide a schedule for the replacement of the well. § Problems and/or damages will be noted in a log book. and noted in the well information database. • The groundwater monitoring plan shall specify the following groundwater monitoring well purging elements. • The purge volume shall be calculated based on voiding three (3) borehole volumes of water from the well. The calculated purge volume shall be documented at the time of sampling. • During well purging, purgewater management will be conducted in accordance with a new “Condition II.F. for this Permit. Write a Part II. F. condition for management of purgewater. • The volume of water purged shall be documented after completion of purging. • Alternatively, if low-flow pumping is conducted for sample collection, the groundwater monitoring plan shall specify and describe the installation of low-flow pumps and include a description of the low-flow pumping routine that will be instituted for collecting groundwater samples. • The groundwater monitoring plan shall specify the following groundwater monitoring in-situ measurements elements to be followed during well purging. § During well purging, at a minimum, the following in-situ criteria shall be	

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		measured and documented: temperature, pH, and conductivity. § Temperature, pH, and conductivity shall be obtained at least three times (start, middle, and end of designated purge time). § The in-situ readings shall stabilize prior to sampling and shall be considered "stable" when the following criteria are met: pH – two consecutive measurements are within 0.2 pH units, temperature – two consecutive measurements agree within 0.2 °C, and conductivity – two consecutive measurements agree within 10% of each other. § In addition to the collection of temperature, pH, and conductivity, in-situ turbidity measurements shall be collected. • The groundwater monitoring plan shall specify the following groundwater monitoring in-situ measurements elements to be followed during well purging. During well purging, in-situ criteria turbidity readings shall be taken and documented. When possible, and when temperature, pH, and conductivity readings are "stable", turbidity readings shall be below 5 nephelometric turbidity units (NTUs) prior to sample collection. In addition, two turbidity readings (duplicates) of the same water shall be taken and documented just prior to sampling. • The groundwater monitoring plan shall specify that if in-situ turbidity criteria are not met, two sets of samples for metals analysis shall be collected. One set of samples shall be filtered and the other set of samples shall not be filtered. • The groundwater monitoring plan and/or the SAP required shall specify the order of filling sample containers and shall begin with volatile organics, semivolatile organics, metals, and end with radionuclides, as applicable. • The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be collected. At a minimum, the description shall include the following: the removal of bottle/container caps, the filling of the sample bottle/container (including description for filling bottles requiring zero headspace), replacement of bottle/container caps. • The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be filtered when in-situ turbidity readings criteria is not met. • The groundwater monitoring plan shall include an identification that immediately after filling the last sample container, the pH, temperature,	

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		and specific conductivity of groundwater will be measured and documented. • The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be managed to maintain chain of custody. At a minimum, the description shall include identification and/or a description of the system for: labeling samples, identifying samples, tracking samples, documenting chain of custody controls, etc. • The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be packaged and shipped. The description shall include a description of how the chain of custody will be maintained during packaging and shipping. • The groundwater monitoring plan and/or the SAP shall include a description of decontamination of sampling equipment and/or bottles/containers used during collection of ground water samples and/or a description of the use of pre-cleaned bottles/containers. • The groundwater monitoring plan and/or the SAP shall specify how the requirements of WAC 173-303-645(10)(g) will be satisfied. If the groundwater monitoring plan does not satisfy the requirements of WAC 173-303-645(10)(g), the supporting information and justification must be provided in the groundwater monitoring plan as well as a description of how the intent of WAC 173-303-645(10)(g) may be satisfied (i.e., method-based analysis). • The groundwater monitoring plan shall specify how the rate and direction of groundwater flow in the uppermost aquifer will be determined on an annual basis as required by WAC 173-303-645(10)(e). In addition, the plan shall specify when and how the rate and direction of groundwater flow determinations required by WAC 173-303-645(10)(e) will be reported to Ecology on an annual basis. • The groundwater monitoring plan shall specify the rate of decline of the water table at the 300 APT Unit's point of compliance (as defined by WAC 173-303-645(6)) will be determined on an annual basis until such time as the decline associated with the 300 APT Unit's water table mounding (due to 300 APT Unit discharges) has ceased. In addition, the plan shall specify when and how the water table regression rate will be reported to Ecology on an annual basis until such time as the water table decline has ceased. • The groundwater monitoring plan shall include a plan for future use and/or remediation for all noncompliant wells in the vicinity of the 300	

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		APT. • Prior to any actions taken to deepen "dry" wells within the vicinity of the 300 APT Unit the Permittee shall submit a well deepening plan for Ecology approval that satisfies the groundwater protection standards of Chapter 173-160 WAC. The well deepening plan shall not be implemented until after the Permittee receives Ecology's approval of the plan. For wells located downgradient to and in the immediate vicinity of the 300 APT Unit for which new information (i.e., inspection information, report of damage, indication during use, etc.) has been obtained via well maintenance activities, routine use, or incident reporting indicating the well is an environmental, safety, or public health hazard, the Permittees shall provide Ecology written notice of the conditions of the well. For such wells, the Permittees shall provide Ecology a description of actions to be taken which includes a schedule for well remediation or decommissioning. For such wells, the Permittees must obtain Ecology's written approval to remediate or decommission the well. • Prior to the installation of any additional wells to be used to satisfy WAC 173-303-645 groundwater monitoring requirements associated with the 300 APT Unit, the Permittee shall submit, for Ecology's approval, a well installation plan that specifies the proposed location of well, well design, installation procedures, management of wastes generated during well installation, etc. The well installation plan shall satisfy Tri-Party Agreement Milestone M-24 requirements for decision documents and/or sampling and analysis plans. • For wells located downgradient to and in the immediate vicinity of the 300 APT Unit for which new information (i.e., inspection information, report of damage, indication during use, etc.) has been obtained via well maintenance activities, routine use, or incident reporting indicating the well is an environmental, safety, or public health hazard, the Permittees shall provide Ecology written notice of the conditions of the well. For such wells, the Permittees shall provide Ecology a description of actions to be taken which includes a schedule for well remediation or decommissioning. For such wells, the Permittees must obtain Ecology's written approval to remediate or decommission the well. • Five (5) years after the groundwater monitoring plan has been implemented, the Permittee shall submit a revised groundwater monitoring plan which specifies the 300 APT Unit's dangerous waste	

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		constituents to which the groundwater protection standards of WAC 173-303-645(3) apply. • The groundwater monitoring plan shall identify 300 APT Unit's waste constituents for which there has been evidence of an increase in contamination at the 300 APT Unit's compliance point. For 300 APT Unit's waste constituents that are required to be monitored as specified in this permit for which the Permittee proposes to exclude from meeting the groundwater protection standards of WAC 1730303-645(3), the Permittee must address considerations of WAC 173-303-645(4)(b)(i), (ii), and (iii). • The groundwater monitoring plan shall identify proposed 300 APT Unit's waste constituent concentration limits that satisfy WAC 173-303-645(5)(a)(i) or (ii). • The groundwater monitoring plan shall specify actions to be taken when proposed concentration limits have been exceeded which include 1) notification of the exceedance, and 2) submittal of an application for a permit modification to establish a corrective action groundwater monitoring program which satisfies WAC 173-303-645(11). • The Permittee shall implement the groundwater monitoring plan required by this Condition within forty-five (45) days of receiving Ecology's approval of the plan. • The groundwater monitoring plan shall specify when the three (3) additional groundwater monitoring wells will be installed at the 300 APT Unit's point of compliance (as defined by WAC 173-303-645(6)). The groundwater monitoring plan shall include: • A schedule for submitting a well installation plan. 1. The groundwater monitoring plan shall also either identify that the proposed new wells will be administratively documented as needed and planned for installation through Tri-Party Agreement Milestone M-24 or specify the process to be followed to ensure installation of the wells on the identified schedule. The groundwater monitoring plan shall describe and/or specify river stage fluctuation influences on the water table in the vicinity of the 300 APT Unit. If river stage fluctuations affect the water table in the vicinity of the 300 APT Unit, the groundwater monitoring plan must include a description of how groundwater monitoring will be conducted to maximize the amount of groundwater (as opposed to river or surface water) being sampled.	

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Russell Jim	300A	9. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment). • Should also coordinate and incorporate requirements listed for the 300-FF-5 OU inspection requirements.	Ecology agrees that all the activities/procedures listed are important and should be followed but feels that they are already followed at the Hanford Site. Sampling procedures are in place to ensure that consistent and uniform sampling occurs for all projects on the Hanford Site. Additionally, individuals that are collecting samples must be certified following a prescribed certification process before they are allowed to collect samples. The certification is broken down by relevant sampling activity (e.g., groundwater sampling, multi-media sampling, etc.) and is preceded by a sampling fundamental certification. Well maintenance is performed to procedures and in accordance with all applicable WACs. The requirements of the CERCLA 300-FF-5 OU Record of Decision will be incorporated and will apply.
Russell Jim	300A	10. Edit Inspection schedule as follows: Inspection Schedule for the 300 APT Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3-5 years	The monitoring wells in the vicinity of the 300 Area Process Trenches, like all wells on the Hanford Site, are generally inspected at the time of sampling. Monitoring well inspection frequency is generally coordinated across the entire site for what makes the most sense on a secure and controlled site. If the well is sampled quarterly, it will be inspected quarterly, however, if it is sampled annually, it will be sampled annually. Ecology does not see any reason why the 300 APT wells should be treated any differently than other wells on the site, therefore, we plan to leave the semiannual inspection requirement for now. Additional requirements for well inspection are also in Attachment 8 of the Revision 9A revised renewal of the Hanford sitewide permit.

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Russell Jim	General	SEPA: Based on old previously submitted SEPA checklists; determinations are previous determinations. Permit permits require new evaluations.	Ecology provided a SEPA determination for Rev. 9 in 2012. Following the public comment period, Ecology addressed over 5,000 comments and worked with USDOE to prepare a revised renewal. Since that time, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal.
Russell Jim	242-A	1. Does not address major upgrades recently made (e.g., new off gas system).	Major modifications to the permit since the 2012 draft renewal are included in the Fact Sheet.
Russell Jim	242-A	2. Does not address need for equipment replacement. The thirty-five (35) yr old evaporator has had equipment failures on established frequency which will continue into the future (e.g., the facility needs to work at a minimum, for another twenty (20) years. Key is the boiler system. Loss of the main boiler unit will result in facility shut-down; requiring a minimum of one to two years to replace it). Failure of the facility will significantly impact the function of the WTP facility.	It is outside the scope of these documents to regulate the evaporator's operational schedule. Therefore, equipment replacement (to mitigate downtime) is not within the scope of this renewal or fact sheet. Regarding reliability, the permit requires an independent qualified registered professional engineer (IQRPE) to conduct a recurring integrity assessment to 1) determine if the unit is fit for use and 2) recommend the timing of the next integrity assessment. It is advised that the next assessment take place by 2032.
Russell Jim	242-A	3. The fact sheet omits the fact that ammonia specifications for evaporator feed have been routinely ignored resulting in corrosion in the off-gas system.	Section B.10.1.4 addresses concerns about ammonia. The Fact Sheet addresses this change.
Russell Jim	242-A	4. The fact sheet omits any of the events which have yielded unplanned contamination.	This comment is not within the scope of the Fact Sheet. Please see Permit Conditions I.E.8.d and II.E.1 which address spills and releases.
Russell Jim	242-A	1. Include a Permit condition to ensure the 242-A Evaporator has necessary upgrades, including replacing equipment (including pre-purchasing of the broiler unit replacement equipment), to safely operate the additional campaigns to process WTP waste streams and to ensure operational lifetime as necessary to do so.	Since the time of this comment, there have been a number of permit modifications addressing the changes required at the 242-A Evaporator to process additional WTP waste. If additional modifications are determined to be necessary, they will be requested and processed as per the requirements of WAC 173-303-830. Additionally, USDOE completed the purchase of a spare E-A-1 reboiler on May 8, 2018. The completion of this requirement is discussed in detail in USDOE Letter 18-TPD-0012, received by Ecology July 26, 2018.

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Russell Jim	242-A	2. Include a permit condition to require a maintenance schedule and plan to address the projected future equipment failures. Base this schedule on a review of historical failure frequency. Require detail operational descriptions per WAC 173-303 requirements.	Draft permit condition III.4.M.1.a requires the permittees to develop a schedule for conducting integrity assessments in accordance with the relevant requirements of WAC 173-303-640(2) and WAC 173-303-640(3). Integrity assessments are also discussed in Addendum I, "Inspection Plan," Table I.1, and Addendum C, "Process Information," Section C.2.5. Detailed operational descriptions and design drawings are also provided in Addendum C, "Process Information."
Russell Jim	242-A	3. Revise/include permit conditions to ensure that past events where contamination and hazardous waste have been unconfined inside the evaporator building do not occur. Require all modifications to secondary containment be prior approved by Ecology. Require these modifications must be subject to WAC 173-303-830 process.	According to WAC 173-303-830, Appendix I, Section G.2, any modification of a tank unit or secondary containment system without increasing the capacity of the unit requires a class 2 modification. Additionally, draft permit condition III.4.J.5 requires the permittee submit a permit modification in accordance with WAC 173-303-830 for any changes to liners or coatings of secondary containment.
Russell Jim	242-A	4. Include a Permit condition to address accumulation of organics in the facility's tanks.	Management of organics is sufficiently covered in Addenda B and C. Comment is rejected.
Russell Jim	242-A	5. Identify requirements for limiting volatile organics within the waste acceptance criteria condition.	Section B.10.1.3 of the 242-A WAP discusses Organic Constituents. "The level of volatile organics in the feed is limited to ensure organic constituents that transfer to the process condensate are compatible with the LERF liner as specified in the LERF and 200 Area ETF Permit Addendum B, "Waste Analysis Plan."
Russell Jim	242-A	6. Ensure Permit conditions address the dangers of ammonia, including flammability and corrosivity.	Ignitable, reactive, and corrosive constituents are addressed throughout the various addenda. The 242-A WAP (Addendum B) addresses the acceptance limits for ammonia. Addendum F addresses preventative measures taken to ensure safety from all hazards associated with the wastes managed in the 242-A Evaporator. Ecology does not agree that the permit conditions should address the specific hazards of any constituents.
Russell Jim	242-A	7. Include details of PCB management.	PCB Management is outside of the scope of the 242-A WAP. Please refer to DST Addenda for additional discussion of PCB Management within the tank farms.
Russell Jim	242-A	1. Edit Addendum to include detail description of how waste streams received by the DST may be chemically adjusted to ensure compliance with the 242-A Evaporator waste acceptance criteria. (note: Include these details in the DST permit).	This comment is not within the scope of the 242-A Waste Analysis Plan. Any adjustment to the waste would take place in the DST System and be more appropriately covered under the DST Waste Analysis Plan. All DST System Waste must meet the acceptance requirements of the 242-A Evaporator prior to transfer into the evaporator.

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Russell Jim	242-A	2. Edit throughout to include requirements to comply with WAC 173-303-300.	Requirements to comply with applicable sections of 173-303-300 have been identified within the 242-A Addendum B, "Waste Analysis Plan," and Part 2 Permit Conditions (II.D.1). This includes application of "process knowledge" and rationale for selection of specific analytes. The Waste Analysis Plan Conceptual Agreement Package developed by Ecology identified required and deficient areas associated with this required information and the deficiencies were resolved throughout collaborative workshops between Ecology and the Permittees.
Russell Jim	242-A	3. Edit to include requirements for compliance with WAC 173-303-140 for those waste streams subject to WAC 173-303-170.	Waste streams subject to WAC 173-303-170 at the Evaporator, including cooling water discharged to the Treated Effluent Disposal Facility under the State Waste Discharge Permit and waste generated during operations and maintenance activities, are outside the scope of the 242-A Evaporator Waste Analysis Plan. Notifications and certifications as required by the land disposal restrictions at 40 CFR 268.7, incorporated by reference from WAC 173-303-140 for process condensate transferred to LERF/ETF are retained in the 242-A Evaporator Operating Record.
Russell Jim	242-A	4. Edit (to ensure consistency) to include updates to the LERF WAP. See comments on the draft LERF/ETF permit.	Since the time of this comment, there have been a number of permit modifications to the LERF/ETF and 242-A Waste Analysis Plans. The 242-A WAP has been reviewed through the Conceptual Agreement Packages and Matrices with the Permittees to ensure the draft includes updates to ensure consistency with the LERF/ETF WAP.
Russell Jim	242-A	5. Edit to include compliance with WAC 173-303-110.	The 242-A WAP has been reviewed through the Conceptual Agreement Packages and Matrices with the Permittees to ensure the WAC 173-303-110 requirements have been met throughout the WAP.
Russell Jim	242-A	6. Provide regulatory authority and clarity of details for the following: Waste may be staged for candidate tank sampling in any DST, including tank 241-AW-102.	As a result of permit modifications made since the time of this comment and the workshops held with the Permittees, the text referenced in this comment no longer exists in the draft. Also, DST tank management practices are not within the scope of the 242-A WAP.
Russell Jim	242-A	7. Provide and include schedule of and identification of candidate waste feed tanks. A modification per WAC 173-303-830 can be requested if needed to re-align schedule.	The selection of candidate feed tanks is not within the scope of the 242-A Evaporator WAP and is based on waste management needs of the DST System. (Section B.5)

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Russell Jim	242-A	8. Provide details for regulatory path for waste unacceptable for processing, and no acceptable pre-treatment or blending options can be identified. Include a permit condition to ensure compliance with WAC 173-303 for disposition of these waste streams. Include this in the DST permit.	Waste that cannot be blended or pre-treated to meet the acceptance criteria for the 242-A Evaporator will not be transferred and will remain in the DST System. Disposition of these waste streams are not within the scope of the 242-A WAP.
Russell Jim	242-A	9. Provide details of the determination that The 242-A Evaporator steam condensate, cooling water and 242-A-81 back flush water waste streams have been determined to not designate as dangerous waste are not subject to requirements of WAC 173-303.	Text has been added to section B.3 that gives the references for the assessments on the cooling water and steam condensate: "The steam condensate and cooling water streams were assessed in the stream specific reports (WHC EP 0342 21 [1990], 242 A Evaporator Cooling Water Stream Specific Report, Addendum 21, and WHC EP 0342 26 [1996], 242 A Evaporator Steam Condensate Stream Specific Report, Addendum 26). The steam condensate and the used raw water waste streams are discharged to the TEDF, under the authority of State Waste Discharge Permit ST0004502."
Russell Jim	242-A	10. Include a permit condition(s) for the submittal of a Sampling and Analysis plan for waste streams to ensure compliance with WAC 173-303-300. Furthermore, it is unclear how the process control plan relates to LERF acceptance criteria or how it ensures compliance with WAC 173-303-140. Provide details. Include permit conditions to ensure compliance with WAC 173-303-140 for waste streams subject to WAC 173-303-170 as well.	Unit Specific permit conditions in section III.4.C specify the requirements for the generation and recordkeeping of waste profiles associated with waste accepted at the 242-A Evaporator. LERF/ETF waste acceptance criteria, specifically related to the liners, has been included in the 242-A Waste Analysis Plan. A Sampling and Analysis Plan has been included in this Waste Acceptance Plan and is based on the 242-A DQO. The 242-A Evaporator does not treat to LDR Standards (WAC 173-303-140)
Russell Jim	242-A	11. Include requirement Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Ecology Publication #09-05-007 and EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5) were used to develop the QA/QC sections of the 242-A WAP
Russell Jim	242-A	12. Include details to describe potentially abnormal feed streams which could threaten human health or the environment and how these will be documented.	Section B.6 states that data produced from the sampling and analysis of candidate feed tank waste is recorded in the process control plan and those process control plans are retained in the operating record. Any data that is outside of the acceptance limits for the 242-A evaporator would not be accepted at the 242-A Evaporator, documented on the process control plan, and retained in the operating record.
Russell Jim	242-A	13. Include details on how the solids are prevented in the waste streams or removed to prevent fouling	During workshops between the Permittees and Ecology text was added to Addendum B, "Waste Analysis Plan" address how solids are managed at 242-A.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	242-A	14. Provide justification: Statements in Section B.11.1.1 indicate use of only one riser. While it is indicated that there is negligible lateral variability in tank supernates, there remains difficulties in obtaining representative samples. There needs to be a caveat for those instances where additional sampling to ensure a representative sample is taken at the required incremental depths.	During workshops between the Permittees and Ecology justification for sample locations was agreed to by all parties.
Russell Jim	242-A	15. Include details on how waste streams reflect EPA SW-846, Method 9090 to insure compatibility with LERF liner materials.	Waste characterization data used in the 242-A process control plans is also evaluated against the LERF liner compatibility date to ensure process condensate compatibility with the liner. SW-846 methods used by the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility to determine the limits of constituents to ensure compatibility is outside the scope of the 242-A WAP.
Russell Jim	242-A	16. Edit Addendum and Table 2.B.3 to include detail description of management of PCBs.	PCB Management is outside of the scope of the 242-A WAP. Please refer to DST Addenda for additional discussion of PCB Management within the tank farms.
Russell Jim	242-A	1. Edit Addendum C, Section C.1.7 regarding the schedule for conducting integrity assessments for the 242-A Evaporator. Require integrity assessment to be at a frequency of every 5 (calendar) years or as required for system repairs This increase is warranted due to future necessary additional campaigns to process WTP waste streams. (See WAC 173-303-640(2)(e)).	Integrity assessment frequencies are set at every 10 years. During workshops between the Permittees and Ecology integrity assessment frequencies were agreed to by all Parties.
Russell Jim	242-A	2. Edit Addendum C, Section C.1.7 to delete following text: Preventive and corrective maintenance including some replacement in kind activities or work that does not change the form, fit or function of existing equipment do not require an IQRPE review under either WAC 173-303-640(7)(f) or WAC 173-303-640(2)(a). Edit and require Ecology approval of “replacement in kind activities or work” (i.e. equivalent equipment). Include a permit condition to ensure compliance with WAC 173-303 regarding facility expansion. Require requests subject to the WAC 173-303-830 process. Require IQRPR review.	During workshops, the text from Addendum C, Section C.1.7 was removed. Revised text was agreed to by all parties in the workshops. Permittees will comply with all applicable laws.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	242-A	1. Edit Addendum (and elsewhere as needed) to include text that in addition to EPA/240/B-01/003 (EPA/QA R-5), EPA Requirements for Quality Assurance Project41 Plans, as amended, the sampling and analysis plan will be consistent with Ecology Publication #94-111, Guidance for Clean Closure of Dangerous Waste Units and Facilities as amended.	During workshops between the Permittees and Ecology text addressing closure was agreed to by all Parties. Closure Plan complies with all applicable laws.
Russell Jim	242-A	2. Revise Addendum (an elsewhere throughout the document as necessary) to also state tanks closures will comply with WAC 173-303-640(8) requirements. Define that all tanks not meeting clean debris performance standards will be macro-encapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].	During workshops between the Permittees and Ecology text addressing closure was agreed to by all Parties. Closure Plan complies with all applicable laws.
Russell Jim	242-A	3. Revise Addendum to state If it is not possible to meet the clean debris surface standard or the piping or ancillary equipment cannot be inspected, those portions of the piping and ancillary equipment will be removed, designated, and disposed of according to WAC 173-303-640(8) and will be macro-encapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].	During workshops between the Permittees and Ecology text addressing closure was agreed to by all Parties. Closure Plan complies with all applicable laws.
Russell Jim	242-A	4. To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	During workshops between the Permittees and Ecology text addressing closure was agreed to by all Parties. Closure Plan complies with all applicable laws.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	242-A	1. Edit appropriate Sections to ensure compliance with WAC 173-303-320, -630(6), -640(6) requirements.	Section I.1 of the revised draft addresses compliance with -320 and -640(6) requirements. -630(6) does not apply as 242-A is not permitted for container storage or treatment.
Russell Jim	242-A	2. Edit Addendum to ensure compliance with WAC 173-303-320(2)(d) requirements with regards to identification of the date and nature of any repairs or remedial actions taken throughout the facility to be included in the inspection log(s).	Section I.3 of the revised draft includes details that the "date and nature of any repairs or remedial actions taken" are included on the inspection log.
Russell Jim	242-A	3. Edit Addendum to include an Attachment with example of the checklist used by the qualified inspector.	During workshops between the Permittees and Ecology, all parties agreed not to include a specific checklist.
Russell Jim	Parts I & II	• Revise Part II Conditions to include Ecology oversight of groundwater for the Hanford site for all TSD units. WAC 173-303-610 and WAC 173-303-645 have requirements for groundwater monitoring plans. These plans must have SAPs. Groundwater monitoring plans are a part of the permit application for permit renewal. They are also apart of Closure Plans. Closure Plans are required to be in the RCRA Permit following the WAC 173-303-830 permit modification process.	Addendum D provides the approved groundwater monitoring plans for regulated units in the permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	• The manner in which the new permit condition II.F.2.a is structured will allow use of a CERCLA SAP outside of the WAC 173-303-830 process and outside of the public involvement process under RCRA. Resulting in less review opportunity & the possibility of changes made to GW monitoring plans (and SAPs) during Unit Managers Meetings by agreement of Project Managers only. Ecology could resolve this by extracting from the CERCLA document(s) those sampling actions/requirements which meet the WAC 173-303-610, -645, and -110 requirements and making an Ecology document which is directly incorporated into the Permit along with the Closure Plan or the Corrective Action Plan; or there could be a table of contents within the CERCLA document which identifies those portions of the document which are applicable to RCRA TSDs or Corrective Action units & these sections could be directly cited into the Permit. Either of these actions would allow for changes to the SAPs and the GW monitoring Plans to be subject to the review process of WAC 173-303-830. Claims of duplication of efforts is nil as Ecology is the owner of the permit and Ecology has authority of oversight of the Permit and is the agency in charge of modifications to the permit and redistribution of changed pages to the permittee.	Permit Condition II.F.2.a is now II.F.2.b. This has been revised to require the Permittees to submit a permit modification when requesting alternative requirements to satisfy groundwater monitoring regulations and corrective action requirements.
Russell Jim	Parts I & II	• Include a Part II condition requiring demonstration of adequate soil characterization (including the vadose zone using WAC 173-303-815 its omnibus authority) of all permitted facilities [examples: tank farms; cribs; ponds; and trenches]. Include/revise Part II conditions to require statistically based sampling designs.	Unit groups that require Groundwater Monitoring Plans include information on adequate soil characterization. In addition, Ecology updated Permit Conditions II.F for Groundwater and Vadose Zone Monitoring and Corrective Action.
Russell Jim	Parts I & II	• It is unclear how Well Remediation and Abandonment and Well Construction compliance with RCRA is ensured. Include these requirement under WAC 173-303-815 authority.	Requirements for well remediation, construction and abandonment are included in the permit through permit conditions and Groundwater Monitoring Plans. For example, the Single-shell Tank permit conditions V.4.D.5 include requirements for well installation and decommissioning. In addition, Ecology and USDOE came to agreement on an issue in which groundwater wells will meet all construction standards in WAC 173-160 by the time the Hanford Site-wide Permit, Rev. 9A is issued.
Russell Jim	Parts I & II	• Revise Part I and II Conditions to include Performance Standards per WAC 173-303-283.	Agreed. I.J Performance Standards was added to the Part I Permit Conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	• Revise Part I and II Conditions to include waste analysis/sampling analysis plan(s) criteria per WAC 173-303.	Waste analysis and sampling analysis are included in standard permit condition II.D, as well as requirements included in Addenda B, "Waste Analysis Plan" within the individual unit groups.
Russell Jim	Parts I & II	• Revise the II. Y Condition to reflect the 2010, II. Y condition which better retains Ecology's ability for RCRA oversight of corrective action on the Hanford site and retains Tribal and public involvement/review opportunities of documents relating to Hanford site cleanup.	The II.Y permit condition reflects the II.Y Permit Conditions were included in the 2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050) and will be retained. Through Ecology's commitment to work with the Nez Perce Tribal Nation, we will continue to keep lines of communication open and will bring any current issues or concerns in monthly Ecology-Nez Perce Tribal Nation meetings.
Russell Jim	Parts I & II	• Throughout new Part II Conditions, the Corrective Action units are excluded from Permit oversight or compliance with Part I & II permit requirements. Nor does the new permit indicate there will be unit-specific requirements. Deferring corrective actions to CERCLA does not preclude compliance with WAC 173-303. Include Part IV units as subject to Parts I and II requirements.	Ecology agrees that WAC 173-303 requirements must be met, and the draft Hanford Site-wide Permit, Rev. 9A reflects those requirements. The II.Y Permit Conditions were included in the 2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050) and will be retained.
Russell Jim	Parts I & II	• Requirements to comply with WAC 173-303-810(6) are not evident. Include new permit condition to ensure compliance. Ensure proper design and construction of the Facility such that it is operated and maintained to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous substance to air, soil, ground water, or surface water, which could threaten human health, or the environment. Ensure any changes to approved designs, etc. are formally documented, subject to WAC 173-303-830, and records maintained.	Agreed. II.B, "Preparedness and Prevention" permit conditions have been re-written and were updated in the Hanford Site-wide Permit, Rev. 8c through a Class 3 permit modification. The Hanford Site-wide Permit, Rev. 9A renewal reflects those updates and the permit condition language is closer to the regulations in WAC 173-303.
Russell Jim	Parts I & II	• Air Emission Standards for Process Vents, Equipment Leaks, Tanks, Surface Impoundments, and Containers deleted: Include Part II permit condition requiring compliance with the applicable requirements of 40 CFR Subparts AA, BB, and CC, which are incorporated by reference at WAC 173-303-690 through 173-303-692. Include a condition(s) to ensure that effluent pollutant levels in stack exhaust meet human health exposure criteria at the point of release.	Ecology included the II.AA, II.BB and II.CC permit conditions from the Hanford Site-wide Permit, Rev. 8c. They are now renumbered to II.Z, II.AA and II.BB permit conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	• Include a Part II (or Unit-specific Permit(s) condition(s) requiring submittal of a modification request when any unit-specific new waste streams have been identified and that this modification goes out for public comment and review. Any modification requests for additional or new waste codes should go out for public review under WAC 173-303-830.	Permit Condition I.C.1 requires USDOE to submit permit modifications according to WAC 173-303-830, Appendix I. A change in waste codes or a change in the management of waste, depending on the type of dangerous waste management unit, would require a permit modification. Class 1 and 11 permit modifications are transmitted to the public quarterly. Class 2 and 3 permit modifications are provided to the public for review.
Russell Jim	Parts I & II	• Include a Part II permit condition requiring the use of a Risk Budget Tool to model cumulative effects to groundwater. The permit condition should also include requirements for submittal of the parameters used in the Risk Budget Tool and their selection subject to the permit modification process. Do not to base the risk budget tool on non-validated models.	The Risk Budget Tool is only applicable to the Integrated Disposal Facility. Permit Conditions and requirements are included in Operating Unit Group 11, "Integrated Disposal Facility" and any updates to the permit language is subject to the permit modification process.
Russell Jim	Parts I & II	I.A.4.a: As drafted, this condition allows for modifications which may not be authorized under the Dangerous Waste WAC 173-303-610(3) regulations [e.g., SAPs developed under CERCLA for use with RCRA TSDs cleanup actions are not directly in the RCRA permit as an attachment to an addendum-only 'referenced.' Changes are possible outside the WAC 173-303-830/840 process [i.e., Changes made to number of contaminants sampled or frequency of sampling without Public Involvement review opportunities. There is no access to records of changes unless you track Unit Manager Minutes]. Request rewrite to state: Each TSD unit shall have an application for a final status Permit or closure/post-closure plan submitted to Ecology in accordance with the schedules identified in the HFFACO. After completion of the Permit application or closure plan review, a final Permit decision will be made pursuant to WAC 173-303-840. Specific Conditions for each TSD Unit shall be incorporated into this Permit in accordance with the Class 3 Permit modification procedures. Changes in Permit referenced TPA schedule dates are subject to WAC 173-303-830/840 to ensure compliance with the Dangerous Waste regulations. Delete reference to II.R. Note: Edit Permit Condition II.R to reflect this change.	The permit condition has been revised. I.A.4.a is now renumbered to I.B and the last sentence no longer includes the Equivalent Materials reference and reads as follows, "In the event the HFFACO is vacated or terminated, the requirements and schedules incorporated into this Permit will continue to be enforceable conditions of this Permit, unless or until modified under this Permit."

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	I.A.5: Edit to clarify changes in Permit referenced TPA schedule dates are subject to WAC 173-303-830/840 to ensure compliance with the Dangerous Waste regulations (e.g., WAC 173-303-610). As stated, Ecology presumptively agreeing to future requirements (e.g., CERCLA actions to satisfy RCRA corrective actions).	I.A.5 refers to the Consent Decree in Washington v. Chu, not to the TPA. The milestones in the Consent Decree are completely separate from the "Permit referenced TPA schedule dates." Permit Condition I.A.5 has been renumbered to I.B.2 in the Hanford Site-wide Permit, Rev. 9A.
Russell Jim	Parts I & II	I.A.6: Provide clarification as to the authority which allows non-compliance with Part I & II conditions.	Permit Condition I.A.6 is not included in the revised Part I and II Permit Conditions. Within the introduction to the Part I and II Permit Conditions, there is a reference to a conflict, but it is between the HFFACO and the Permit. We removed those permit conditions because if there is a conflict between the unit-specific conditions and the Part I and II Conditions that the standard conditions would prevail.
Russell Jim	Parts I & II	I.C.3: Include somewhere within this condition following text: (e.g., This process shall apply to modifications to changes in design or operations of the Facility, or any modification or change in dangerous waste management practices covered by this permit.)	Permit condition I.C.3 is now renumbered to I.C.1 and includes reference to WAC 173-303-830 and -840 requirements that appropriately classifies permit modifications and ensures notification and involvement of the public, as appropriate. Within -830, Appendix I, there are examples of permit modifications and classifications that include changes in design or operations of the facility, as well as any modification or change in dangerous waste management practices that are outlined in the permit.
Russell Jim	Parts I & II	I.D.2: Delete (b): This is a final status facility permit.	The permit condition was reviewed to ensure the regulatory authority is included and Ecology made the decision to retain the permit language.
Russell Jim	Parts I & II	I.E.3: Include the following text: All releases, regardless of location of release, or quantity of release, shall be controlled and mitigated, if necessary, as required by WAC 173-303-145(3).	Permit Condition I.E.3 is now renumbered to I.E.3.a and reads as follows, "I.E.3 Duty to Mitigate I.E.3.a The Permittees must take all steps required by Ecology to minimize or correct any adverse impact to the environment resulting from noncompliance with this Permit. Any such mitigation efforts required by Ecology and performed by the Permittees shall not be deemed a defense to enforcement action taken for noncompliance with the Permit. [WAC 173-303-810(5)]"

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	I.E.4.a: Edit to include required Quality Control procedures.	I.E.4.a has been revised as follows, "I.E.4.a The Permittees will at all times properly operate and maintain all facilities and systems of treatment and control, which are installed or used by the Permittees, to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems only when necessary to achieve compliance with the Conditions of the Permit. [WAC 173-303-810(6)]"
Russell Jim	Parts I & II	I.E.4.b: Provide clarification as to Ecology's authority to allow Permittee to operate equipment which does not have manufacturer's instructions or to perform other actions which do not have applicable regulatory or code requirements.	We agreed and removed the permit condition.
Russell Jim	Parts I & II	I.E.5: Include WAC 173-303-390(3)(c).	In permit condition I.E.11, "Additional Reporting" WAC 173-303-390(3) has been included.
Russell Jim	Parts I & II	I.E.6.b: Include WAC 173-303-390(3)(a).	In permit condition I.E.11, "Additional Reporting," WAC 173-303-390(3) has been included.
Russell Jim	Parts I & II	I.F.1.b: New I.F.1.b includes text allowing choice and use of a sampling method not authorized through the regulations. WAC 173-303-110(1) states: Quality control procedures specified by the testing method or an approved equivalent method must be followed for the analytical result to be considered valid for designation. WAC 173-303-110(4) states: Substantial changes to the testing methods described above will be made only after the department has provided adequate opportunity for public review and comment on the proposed changes. Delete text and require compliance with WAC 173-303-110(1) and WAC 173-303-110(4).	Ecology developed Waste Analysis Plan guidance that requires the Permittees to comply with WAC 173-303-110 regulations. Although the permit conditions do not contain these requirements, Ecology worked with the Permittees to provide the deficient information in support of the WAP Addendum.
Russell Jim	Parts I & II	I.F.2.c: Request new permit condition I.F.2.c: The Permittees will comply with the requirements of WAC 173-303-810(11)(3), incorporated by reference.	Permit Condition I.F.2.c is now renumbered to I.F.2.b and it references WAC 173-303-810(11)(e).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	I.F. 3.a: Condition does not include corrective action units in Part IV of the Permit. Monitoring reporting under WAC 171-303-810(11)(d) must include monitoring of the facility's impacts. WAC 173-303-requires corrective action units must be in the Permit. Include Part IV units.	WAC 173-303-810(11)(d) is referenced in I.E.8.b and I.E.11.a under the Permit Condition Section, "I.E.8 Reporting Noncompliance with the Permit and Reporting Emergencies". Permit Condition I.F.3.a is no longer included in the permit conditions.
Russell Jim	Parts I & II	I.F.5: Also cite compliance with WAC173-303-145(2) which requires immediate notification of a spill or nonpermitted discharge. I.F.5.a: Include text requiring the description of the occurrence and its cause will include all information necessary to fully evaluate the situation and to develop an appropriate course of action.	Permit Conditions II.E, "Cleanup of Released Material" are now included in the standard conditions and reads as follows, "II.E.1 The Permittees will comply with the requirements of WAC 173-303-145, incorporated by reference, including notification, mitigation, and control measures specified in WAC 173-303-145(2), and (3), when any dangerous waste (including mixed waste) or hazardous substance is intentionally or accidently spilled or discharged into the environment (unless otherwise permitted) such that human health or the environment is threatened, regardless of the quantity of the spill or release. II.E.1.a Notifications to Ecology will be provided to the Central Regional Office at: 509-575-2490.
Russell Jim	Parts I & II	I.F.6.a: Delete “as appropriate.” Meaning is unclear.	I.E.8.d reads as follows, "The Permittees must meet requirements for reporting and written submissions in WAC 173-303-360(2)(k) in the event of spills, releases and other emergencies." The inclusion of "as appropriate" is no longer included.
Russell Jim	Parts I & II	I.F.7: Question: Why doesn't Ecology use its omnibus authority (WAC 173-303-815(2) to require 30 days advanced notice of any planned changes and notification immediately after the Permittees become aware of the anticipated noncompliance should a 30 day advance notice not be possible?	Revised Permit Conditions I.C.1.c includes requirements for notification of any planned changes or an anticipated noncompliance. It reads, "I.C.1.c The filing of a request by the Permittees for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition." This standard condition is consistent with other Washington State permits.
Russell Jim	Parts I & II	I.F.7.a: Statement is made; "An instance of noncompliance under is requirement may instead be documented by inclusion in the Hanford Facility Operating Record maintained pursuant to Permit condition II.I [WAC 173-303-810(14)(g). It is unclear whether intent is to allow non-reporting of such occurrences. Request use of term 'will' instead of 'may be'.	Permit Condition I.F.7.a is no longer included in the Part I and II Permit Conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	I.H: Permit condition unclear. Requirement to reapply belongs under Permit condition I.E [Duties & Requirements]. Example presented citing when issuance is impracticable due to time or resource constrains is not authorized under WAC 173-303. Request the deletion of this condition.	Permit Condition I.H has been renumbered to I.C.3 and reads as follows: I.C.3 Duty to Reapply and Permit Continuation I.C.3.a If the Permittees wish to continue an activity regulated by the Permit after its expiration date, the Permittees must apply for and obtain a new permit. In addition, the Permittees must apply for and obtain a new permit if applicable corrective action, closure and/or post closure care required by this permit has not or will not be completed by the Permit's expiration date. Ecology review of any application for a permit reissuance will consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [WAC 173-303-806(6)] I.C.3.a.i To continue an activity allowed by this Permit after the Permit's expiration date or to complete applicable corrective action, closure and/or post closure care required by this Permit, the Permittees must submit to Ecology a new permit application at least 180 days before this Permit's expiration date, unless Ecology grants a later date provided that such date will never be later than the expiration date of the effective permit. [WAC 173-303-806(6)] I.C.3.a.ii In accordance with WAC 173-303-806(7), if the Permittees submit a timely, complete application and Ecology has not made a final permit determination as set forth in WAC 173-303-840, this Permit will remain in effect beyond the Permit's expiration date until Ecology does make a final permit determination (issuing or denying a new permit). I.C.3.b If the Permittees fail to submit a timely, complete application as required under Permit Condition I.C.3.a, then those permit terms and conditions necessary to conduct and complete applicable corrective action, closure and/or post closure care required by this Permit, will remain in effect beyond the permit's expiration date until Ecology's terminates the terms and/or conditions or this permit is revoked and reissued. [WAC 173-303-815(2)(b)]

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	I.J.1.a: Rewrite to include: • Include requirement to comply with WAC 173-303-390(2)(h) which requires a description of the changes in volume and toxicity of on-site waste in comparison to previous years. • To facilitate public involvement/Tribal involvement, include requirement that all reports, required WAC 173-303-810 & WAC 173-303-390, with the exception of the Annual Report, be maintained in the Hanford Facility General Operating Record & the unit specific record files concurrently.	I.J.1.a is now renumbered to I.E.11 and includes requirements to comply with WAC 173-303-390(2). Regarding maintenance of reports in the Hanford Operating Record, II.I provides the following requirements: II.I.1 The Permittees will comply with the applicable requirements of WAC 173-303-380(1), incorporated by reference, in addition to unit-specific recordkeeping and reporting requirements specified in Parts III, IV, V and VI to maintain the Hanford Facility Operating Record pursuant to WAC 173-303-380. II.I.2 The Hanford Facility Operating record will include permit information that corresponds to chapters of Parts III, IV, V, and VI. Except as specifically provided otherwise in this Permit, the Permittees will record in the Hanford Facility Operating Record, all information required by the Permit within seven working days after the information becomes available. Information in the Hanford Facility Operating Record may be maintained on paper or electronic format, or both [WAC 173-303-380(3) and -830(4)] II.I.2.a The Permittees will make available to Ecology, upon request or via direct access, as agreed to between the Permittees and Ecology pursuant to the HFFACO, contents of the Hanford Facility Operating Record. [WAC 173-303-380(3)(a)] II.I.2.b The Permittees will place records and report required by Part I and II Conditions as shown in Attachment 6, Recordkeeping and Reports, incorporated by reference. All other records and reports required by unit-specific conditions will be placed in the e Hanford Facility Operating Record unless otherwise required. II.I.3 The Permittees will include in the Hanford Facility Operating Record all information from the Hanford Facility Operating Record maintained pursuant to the Permit issued August 24, 1994. [WAC 173-303-281(6)(c).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.A.1: Text states compliance with "enforceable" sections of Permit Attachment #4. Everything in the Permit should be enforceable. Ecology can and should extract those sections of the document(s) that are the basis of a Permit requirement and write their own document(s) and include them as Permit attachments. There is not duplication of efforts as Ecology is the owner of the Permit and Ecology is required to issue modifications to the Permit under WAC 173-303-815, -830-840. Ecology then provides the updates to the Permittee. (NOTE; whereas previous specific subsections of a WAC requirement were identified, the full requirement is now cited. When a full WAC regulation is cited without a specific call out of a subsection, the entire section is considered to apply. (ex WAC 173-303-350 is full cite of all subsections as applied vs. specific identification of subsection being applied -WAC 173-303-350(4))	At the Hanford Site, there has been final status unit groups and interim status unit groups, so the Contingency Plans, written as Building Emergency Plans and Facility Response Plans, have templates that identify the portions that are applicable to that particular status. Once Rev. 9A is issued, all the BEPs and FRPs will reflect final status unit groups and the portions that are not subject to a permit modification will be removed. We do have an agreement with USDOE that when Building Emergency Directors and associated personnel are modified, the Permittees can submit a modification called a nonenforceable change or NEC. It is essentially a Class 1 permit modification. The revised permit conditions are written as follows: II.A Facility Contingency Plan II.A.1 The Permittees will comply with enforceable sections of Permit Attachment 4, Hanford Emergency Management Plan (DOE/RL-94-02). Enforceable sections of Permit Attachment 4 are identified in Appendix A. The Permittees will also comply with applicable unit/unit-group specific Building Emergency Plan (BEP)/Facility Response Plan (FRP) requirements in Part III. Enforceable sections of unit/unit-group specific BEPs/FRPs are identified in Attachment B, included in each BEP/FRP. Part V and VI unit/unit groups will have a BEP/FRP or will incorporate required provisions of WAC 173-303 into the Closure or Post-Closure Plan. [WAC 173-303-360(2) and WAC 173-303-350] II.A.3 The Permittees will review and immediately amend, when necessary, Permit Attachment 4, Hanford Emergency Management Plan, and applicable unit/unit-group specific Addenda F, (Preparedness and Prevention) and Addenda J (Contingency) in Parts III, V, and VI according to the requirements of WAC 173-303-350(5)(a) – (e), incorporated by reference. Amendments will be made in accordance with the permit modification provisions of Permit Condition I.C.1. [WAC 173-303-350(5)] II.A.4 The Permittees will comply with the requirements of WAC 173-303-350(3)(d) and -360, incorporated by reference, concerning the emergency coordinator. At Hanford the role of Emergency Coordinator is filled by a Building Emergency Director (BED) or Building Warden (BW). The Permittee maintains a current listing of names and home telephone numbers of BEDs/BWs. Additionally, a master list of the qualified BEDs/BWs is maintained in Attachment 4A. The Attachment 4A TSD unit BED/BW master list will be modified in accordance with Permit Condition I.C.1.

Commenter	Unit Group	Comment	Comment Response
			When Attachment 4A is revised, if applicable, individual unit/unit-group specific BEPs/FRPs will also be modified in accordance with Permit Condition I.C.1. II.A.4.a When changes are made to nonenforcable portions of Permit Attachment 4, unit-specific contingency documentation, and/or Attachment 4A, the changes are not required to be documented through a dangerous waste permit modification under WAC 173-303-830 or Permit Condition I.C.1. The Permittee shall provide a copy of the amended documentation to Ecology through a formal letter.
Russell Jim	Parts I & II	II.A.2: Include citation: WAC 173-303-830(4) requirements for the permit modification process.	In permit conditions II.A.4, WAC 173-303-830 has been added, as well as references to I.C.1 throughout II.A permit conditions to reflect appropriate permit modifications to update the facility contingency plans.
Russell Jim	Parts I & II	II.B.1: Cites design, construction, operations, and maintenance under WAC 173-303-340 requirements. Include WAC 173-303-283 [Performance Standards] citation.	Agreed. Performance standards permit conditions are included in I.J.
Russell Jim	Parts I & II	II.C: Include new Permit condition II.C.5.d: The Permittees shall provide the necessary training to non-Facility personnel (i.e., visitors, sub-contractors) as appropriate, for the locations of such personnel, and the activities that will be undertaken. At a minimum, this training shall describe dangerous waste management hazards at the Facility. [use WAC 173-303-815(2)].	The following permit condition is included in the Part II Conditions, "II.C.4.e The Permittees will provide the necessary training to non-Facility personnel (i.e., visitors, subcontractors), as appropriate, for the locations of such personnel, and the activities that will be undertaken. At a minimum, this training will describe dangerous waste management hazards at the Facility."
Russell Jim	Parts I & II	II.D: Clarification and editing required throughout: • Unclear whether there will be written waste analyses or sampling analyses plans (WAPs & SAPs) required for each TSD or Corrective Action Units. Edit condition to reflect this be required subject to WAC 173-303. Retain compliance requirements under WAC 173-303-815(2). • Unclear whether these 'plans' will be subject to compliance with the requirements of WAC 173-303-110 or WAC 173-303-610 or WAC 173-303-830/840 processes. Edit condition to reflect all SAPS to be subject to these WAC 173-303- requirements. o (Note: New condition II.D.2.a. references newly revised conditions II.Y.2. This process affects all land-based units [including the tank farms in the future]. While stating that if the work done under CERCLA is not accepted the Permittees will have to comply with WAC 173-303-300 [waste analysis requirements], Ecology is implying that WAPs & SAPs developed under	Ecology developed Waste Analysis Plan guidance that requires the Permittees to comply with WAC 173-303-110 regulations. Although the permit conditions do not contain these requirements, Ecology worked with the Permittees to provide the deficient information in support of the WAP Addendum.

Commenter	Unit Group	Comment	Comment Response
		corrective actions through the HAFFCO will not be subject to the same modification and public involvement review process as afforded by RCRA-WAC 173-303-830/840. Unsaid is the inferred agreement that changes to these plans maybe agreed to during Unit Manage Meetings by Project Managers as currently allowed under the HFFACO.) • Unclear how this Condition ensures compliance with the requirements off WAC 173-303-300(4) & (5). Citation of only these subsections WAC 173-303-300 is incomplete compliance with WAC 173-303-300 regulations. Include compliance with all WAC 173-303-300. • Basis for Quality Assurance/Quality Control in WAPs/SAPs unclear. Request inclusion of text requiring consistency with Ecology Publication # 04-03-030 [Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies]. • Unclear why requirements for meeting the additional waste analysis requirements as specified in WAC 173-303-140(4)(b), 173-303-395(1), 173-303-630 thru 173-303-670 and 40 CFR 264.1034, 264.1063, 284(a) and 268.7 have been deleted. Include new condition requiring compliance with these requirements. • WAP/SAP requirements for off-site facilities deleted. Include new condition to ensure compliance with WAC 173-303-300(3), (5)(g) & (6) and WAC 173-303-380(j through n). • Within new waste analysis conditions, cannot locate requirement to comply with WAC 173-303-300(2)(b)[recordkeeping]. Include compliance with these requirements.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.F: Clarification and editing required. • New II.F.2.a states permittee will satisfy groundwater protection and monitoring requirements by use of alternative requirements and schedules in the HFFACO. Revise TEXT to state "may". Ecology must first make a determination that the proposed groundwater monitoring plan meets the requirements of WAC 173-303-645; as currently stated, Ecology is making presumptive agreements and does not have this authority. Not all TSD units satisfy the criteria listed. A decision must be 'consistently applied' over the facility [i.e., every instance] or the decision is subject to challenge on the basis of being arbitory and capricious. • New II.F.2.b states the Permittee will promptly identify to Ecology any document etc. As written, this document bypasses the WAC 173-303-830 modification and public involvement process and implies approval without Ecology review or need to incorporate changes into the Permit through reviews. It appears to say that the HFFACO is the authority by which Ecology does permitting oversight. This appears to be in violation of the authority granted Ecology by EPA to do oversight of the Hanford Facility under the Dangerous Waste regulations of WAC 173-303. • Evaluation of the applicability of vadose zone monitoring deleted. Purgewater Management requirements deleted. Include Part II Permit condition(s) to reflect compliance with WAC 173-303. • Unclear how Well Remediation and Abandonment and Well Construction compliance with RCRA is ensured. Include these requirement under WAC 173-303-815 authority.	We accepted the comment for permit condition II.F.2.a and changed the language to include the word "may". In addition, for II.F. Permit condition II.F.b as written in Rev. 9 is not included in the Hanford Site-wide Permit, Rev. 9A Parts I and II Conditions. II.F Permit Conditions include requirements for Vadose Zone Monitoring and Purgewater Management. Groundwater Monitoring Plans include requirements and enforceable language for well remediation, abandonment and well construction.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.I: Clarification and editing required. • Edit II.I.1 to state: The Permittee will comply with WAC 173-303-380(1) in its entirety, -380(3) AND -810(11), incorporated by reference, in addition to unit-specific recordkeeping and reporting requirements specified in Parts, III, IV, V, and VI. • Edit II.I to include a permit condition requiring identification and description of the system(s) currently utilized to generate Occurrence Reports. Require identification of on-site location of hard-copy Occurrence Reports, an identification of on-site access to the systems' data, and an on-site contact name and telephone number [utilize WAC 173-303-815(2) authority]. • Edit II.I to include a permit condition requiring compliance with WAC 173-303-390(1). • Edit II.I to include a permit condition requiring compliance with WAC 173-303-360(2)(k). • Edit II.I to include a permit condition requiring compliance with WAC 173-303-610(10) and inclusion of these records in the Facility Operating Record. • Edit II.I.to include a permit condition requiring compliance with WAC 173-303-390(2) & (3). • Edit II.I.5 to read: The following, but not limited to, records will be placed in the Hanford Facility Operating Record, in addition to the recordkeeping requirements specified elsewhere in this Permit. • Edit II.I.5.b to read: Summaries of all records of corrective actions and including summaries of all records of groundwater corrective action required by WAC 173-303-645.	Regarding maintenance of reports in the Hanford Operating Record, II.I provides the following requirements: II.I.1 The Permittees will comply with the applicable requirements of WAC 173-303-380(1), incorporated by reference, in addition to unit-specific recordkeeping and reporting requirements specified in Parts III, IV, V and VI to maintain the Hanford Facility Operating Record pursuant to WAC 173-303-380. II.I.2 The Hanford Facility Operating record will include permit information that corresponds to chapters of Parts III, IV, V, and VI. Except as specifically provided otherwise in this Permit, the Permittees will record in the Hanford Facility Operating Record, all information required by the Permit within seven working days after the information becomes available. Information in the Hanford Facility Operating Record may be maintained on paper or electronic format, or both [WAC 173-303-380(3) and -830(4)] II.I.2.a The Permittees will make available to Ecology, upon request or via direct access, as agreed to between the Permittees and Ecology pursuant to the HFFACO, contents of the Hanford Facility Operating Record. [WAC 173-303-380(3)(a)] II.I.2.b The Permittees will place records and report required by Part I and II Conditions as shown in Attachment 6, Recordkeeping and Reports, incorporated by reference. All other records and reports required by unit-specific conditions will be placed in the e Hanford Facility Operating Record unless otherwise required. II.I.3 The Permittees will include in the Hanford Facility Operating Record all information from the Hanford Facility Operating Record maintained pursuant to the Permit issued August 24, 1994. [WAC 173-303-281(6)(c). In Permit Conditions I.E, there are requirements for reporting: I.E.11 Other Reporting I.E.11.a Monitoring Reports: Monitoring results must be reported at intervals specified elsewhere in this Permit. [WAC 173-303-810(14)(d)] I.E.11.b The following reports are required: I.E.11.b.i Manifest discrepancy report as specified in WAC 173-303-370(4)(b) and WAC 173-303-370(5). I.E.11.b.ii Unmanifested waste report as specified in WAC 173-303-390(1). I.E.11.b.iii Annual report as specified in WAC 173-303-390(2). I.E.11.b.iv Additional reports as specified in WAC 173-303-390(3).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.J: Edit to include condition requiring compliance with WAC 173-303-610(2) and WAC 173-303-283.	The revised II.J permit conditions on Closure and Post-Closure, Ecology included citations for WAC 173-303-610(2). In addition, Ecology developed Closure Plan guidance that requires the Permittees meet closure requirements under WAC 173-303-610. Ecology and USDOE agreed in working through the Closure Plan requirements as follows: The main objective for closure of each DWMU [e.g., clean closure by removal or decontamination, landfill closure, closure using alternative requirements in WAC 173-303-610(1)(e) if eligible] will be included in the closure plan. The closure plan will also include a high-level description of how each DWMU will be closed in accordance with the WAC 173-303-610(2) closure performance standard, including a description of all planned activities (e.g., waste removal, removal and/or decontamination of structures and equipment, and removal and/or decontamination of any contaminated soil or other contamination resulting from the DWMU).
Russell Jim	Parts I & II	II.N: Unable to locate compliance with WAC 173-303-395 regarding loading of manifest wastes from off-site. Include permit condition to read: The Permittees will comply with the requirements of WAC 173-303-395(1) and WAC 173-303-395(4). II.N: Include new condition: The Permittees will comply with the requirements of WAC 173-303-300(6). II.N: Include new condition: All non-containerized solid, dangerous waste transported to or from TSD units, subject to this Permit, be covered to minimize the potential for material to escape during transport.	Requirements for WAC 173-303-300 and 395 are included in the individual Unit Group Waste Analysis Plans. Unit Group requirements regarding requirements for transport of waste will be described in the individual Waste Analysis Plans. Permit Conditions II.N were revised following discussions and the updated language is included in the revised renewal.
Russell Jim	Parts I & II	II.N.3: Edit to include required compliance with WAC 173-303-190.	II.N Permit Conditions include compliance with WAC 173-303-190.
Russell Jim	Parts I & II	II.N.5: New condition II.N.5 allows incomplete resolution of discrepancies; Edit text to also include requirement that discrepancies must be reconciled within 15 days in compliance with WAC 173-303-370(4)(b).	Permit Condition II.N.5, now renumbered to II.N.4 and II.N.4.a was retained and II.N.5 provides additional requirements for the entire II.N permit conditions regarding maintaining copies of waste transportation documentation in the Hanford Operating Record of the receiving location [WAC 173-303-370, WAC 173-303-815(2)(a).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.O: New condition II.O states modification to LDR requirements may be modified by treatment requirements set forth in the HFFACO or as modified by treatment requirements set forth in the Permit. Ecology appears to be giving presumptive approval to allow changes to Land Disposal Restrictions based on approval changes granted under the HFFACO. Ecology does not have the authority to guarantee changes to LDRs through any process but that which is outlined in WAC 173-303-140 and through the WAC 173-303-830 permit modification process. Edit this text to ensure compliance with WAC 173-303-140 and WAC 173-303-830.	Ecology revised the permit condition as follows, "Land Disposal Restrictions II.O.1 The Permittees will comply with all Land Disposal Restrictions (LDR) requirements as set forth in WAC 173-303-140, incorporated by reference, and approved treatability variance requests pursuant to 40 CFR 268.44(h), or approved determination of equivalent treatment requests pursuant to 40 CFR 268.42(b)."
Russell Jim	Parts I & II	II.Q: Include permit condition: All air emissions from TSD units subject to this Permit shall comply with all applicable state and federal regulations pertaining to air emission controls, including but not limited to, Chapter 173-400 WAC, General Regulations for Air Pollution Sources; Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants; and Chapter 173-480 WAC, Ambient Air Quality Standards and Emissions Limits for Radionuclides.	Permit Conditions II.Z, II.AA and II.BB include requirements regarding air emissions for process vents, equipment leaks and tanks, surface impoundments and containers.
Russell Jim	Parts I & II	II.R: Edit or delete: New II.R Condition states modification to RCRA facilities' permit compliance schedules will not be subject to the WAC 173-303-830 process. [e.g., Changes in the HFFACO milestones for submittal of Closure Plans or other types of documentation used to support RCRA permitting decisions [SAPs/RI/FS/DQO]. Include requirement to comply with WAC 173-303-830 for any changes in the HFFACO milestones affecting units in the Hanford Facility Permit. Require copies of correspondence regarding schedule extension to be kept in the Operating Record.	Permit Condition II.R, "Schedule Alterations" was deleted from the Hanford Site-wide Permit, Rev. 9A Part I and II Conditions and is marked "Reserved".
Russell Jim	Parts I & II	II.T: Edit to include required compliance with WAC 173-303-390(2).	Permit Conditions II.T were renumbered to I.I and I.I.2 includes the following language, "I.I.2 The Permittees must report waste minimization efforts in their annual report as required by Permit Condition I.E.11.b," in which I.E.11.b includes reference to WAC 173-303-390(2).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Parts I & II	II.Y: The Yakama Nation-ERWM program does not support the new changes to the II.Y. Condition(s) and request Ecology Revise the II. Y Condition to reflect the 2010, II. Y condition(s). • There is high concern that our treaty rights, including full access to cultural resources on the Hanford Site by the Yakama Nation, the protection of the health of Yakama Nation tribal members and the environment, and Land Use Agreements (Open and Unclaimed Lands) maybe in jeopardy (see comments on 1325-N for further clarity). • These changes impact the Public Involvement process of WAC 173-303-830/840 and limit the Yakama Nation-ERWM program's opportunities to challenge or seek modification of corrective action decisions in the future. We do not believe that Ecology's reservation of authority to review and impose corrective actions after completion of CERCLA actions will afford us the same opportunities for Public Involvement as provided through the Dangerous Waste Regulations for permit modification(s). • The purpose of corrective actions is to ensure full characterization of releases to the environment. Such characterization is necessary to define the nature and extent of contamination. We do not believe corrective actions performed under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) actions will be as complete and have cleanup levels as stringent as under RCRA corrective actions (i.e., particularly the characterization of the vadose zone beneath units subject [e.g. 'Green Islands'-LLBG] to the II.Y. Condition(s)). (see comments on 300 APT for further clarity). • Use of past-practice authority has not proven to be the most efficient way to remediate groundwater plumes of mixed waste from a combination of past-practice treatment, storage, and disposal units. Ecology's earlier "coordination" of corrective action at 300 APT with CERCLA remedial actions has not resulted in compliance with Dangerous Waste regulations –WAC 173-303-283, -610, -or -645 requirements to protect human health or the environment. More stringent facility cleanup standards should be applied. • For further clarification, see out 6/21/2010 comment response letter on Review of the Corrective Action Class 3 Permit Modification of the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit (WA 7890008967), Introduction and II.Y Conditions. These concerns remain relevant.	The II.Y permit condition reflects the II.Y Permit Conditions were included in the 2000 Settlement for the Corrective Action Appeal (PCHB No. 00-050) and will be retained. Through Ecology's commitment to work with the Nez Perce Tribal Nation, we will continue to keep lines of communication open and will bring any current issues or concerns in monthly Ecology-Nez Perce Tribal Nation meetings.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	1. Revise Permit condition V.4.B.3.f (e) [refers to releases to the soils and groundwater] to include identification of specific methodology to be used in determining how releases are identified as occurring and the process for compliance with WAC 173-303-640(4) requirements.	Permit Condition V.4.B.3.f is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information.
Russell Jim	SST	2. Revise/include a Permit condition to address leaks from all waste transfer lines (including HIHT), diversion boxes, and other system components (including all ancillary equipment).	The Rev 9A Permit includes Addendum J, Continegency Plan (Building Emergency Plan) and Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leak is discovered. Ecology worked with USDOE to provide a full set of Addendum and permit conditions.
Russell Jim	SST	3. Revise/include a Permit condition to ensure that all waste which has escaped into the environment (including the Vadose Zone and outside the boundaries of Tank Farms) is identified, characterized such that the vertical and lateral extent of the contamination is identified, and that such releases are remediated in accordance with the Dangerous Waste Regulations under WAC 173-303-645.[Use WAC 173-303-815(2)	This is covered in Permit Conditions V.4.D and V.4.H.7 and the Addenda D, Groundwater Monitoring Plans and Addenda H, Closure Plans
Russell Jim	SST	4. Revise Permit condition V.4.B.3.f (h) [refers to tank integrity assessment] to include identification of the process for selection of the methodology/criteria for determining tank integrity citing also WAC 173-303-640(2) regulations and identify the requirements necessary to be in compliance.	Permit Condition V.4.B.3.f(h) is no longer needed in the Permit Conditions and has been removed. This information has been included in Addendum C, Process Information.
Russell Jim	SST	5. Revise Permit condition V.4.G.2.c.i [refers to closure Performance Standards] to include all specific criteria which must be met in order meet the required “Impracticability Demonstration.”	Permit Condition V.4.G.2.c.i is now V.4.H.2.c.i. This Permit Condition has been rewritten to provide clearer requirements to provide a practicability demonstration.
Russell Jim	SST	6. Revise the V.4.C Conditions [refers to SST Groundwater Monitoring] to reflect and cite WAC 173-303-645(11) [Corrective Action Program for release from regulated units] requirements.	Permit Condition V.4.C is now V.4.D. This Permit Condition section has been rewritten to provide clearer requirements for Corrective Action (see Permit Condition V.4.D.4).
Russell Jim	SST	7. Include a Permit condition requiring submittal of all TSAPs (Tank or Component Specific Sampling and Analysis Plans) subject to WAC 173-303-830/840 permit modification requirements.	Permit Condition V.4.H.7.c requires the permittees to submit TSAPs, but TSAPs are not part of the Rev 9A Permit. Ecology cannot regulate the modification process of the TSAPs using the Rev 9A Permit process.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	8. Include/revise a Permit(s) condition(s) requiring the construction of new double shell tanks and emptying of the tanks known or suspected of leaking as expeditiously as possible.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. Part of the System Plan is to install a new DST to help with the retrieval and move waste to the Vitrification Plant. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	9. Revise Permit condition V.4.B.3.g. (k) & (l) [refers to maps and descriptions of tanks/ancillary equipment/piping distribution] to include specific criteria which must be met in order to determine integrity status and retrieval status. [see previous comment regarding Tank Assessments]	Permit condition V.4.B.3.g. (k) & (l) has been removed. This information has been included in Addendum C, Process Information.
Russell Jim	SST	10. Include/revise a Permit condition requiring a Compliance Schedule in accordance with WAC 173-303-610(3) requirements. The Milestone Schedule for closure of SST does not support WAC 173-303-610 or 173-340-360(4) requirements.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	11. Include/revise a Permit(s) condition(s) to require a priority basis when establishing plans for emptying tanks (i.e., the “Systems Plan”) and the alternatives considered shall require that the tanks be emptied in RCRA priority (i.e., First priority - known leaking tanks, second priority - suspected leaking tanks, third priority - non-compliant single shell tanks, finally all remaining tank wastes).	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	12. Include/revise a Permit(s) condition(s) to ensure the Permittee (DOE) complies with WAC 173-303 requirements to characterize the vertical and horizontal extent of SST sites contamination.	Permit condition V.4.C.5 requires the characteristics of waste. This information has also been included in Addendum C, Process Information.
Russell Jim	SST	13. Utilize its Omnibus Authority under WAC 173-303-815 and include a Permit(s) condition(s) requiring characterization (i.e., physical sampling) and monitoring of the vadose zone beneath the SST Tank Farms and other mixed waste sites.	The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. Permit Condition V.4.H.2.c.i requires Risk Assessment documents to be revised before closure can be started for WMA C.
Russell Jim	SST	14. Include/revise a Permit(s) condition(s) to ensure better validating leak detection methodology and capability and to establish the criteria for what constitutes acceptable leak detection capability.	Permit Condition V.4.J.7 covers the requirements for tank leak detection monitoring. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	15. Include/revise a Permit(s) condition(s) requiring the pumping of water or waste out of “dry wells” and requiring annual (or more frequent) gamma logging of the dry wells to depths >55 feet past the first wetted zone in the soil, and to the full well depth in most cases, to improve early tank waste leak detection.	The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging.
Russell Jim	SST	16. Include/revise a Permit condition(s) requiring the Permittee (DOE) to extend dry wells that do not extend to at least 60 feet and to utilize these wells to perform gamma logging and detection or leaks or extension of contaminate plumes.	The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit. The Addendum D for WMA A-AX states that there are 75 ft to 125 ft dry wells currently installed. Revised Permit Conditions V.4.C.6, V.4.J.7.c, and V.4.J.9 include requirements for dry well logging.
Russell Jim	SST	17. Include a Permit(s) condition(s) requiring all changes to groundwater monitoring to be incorporated into the RCRA Permit(s) per the WAC 173-303-830/840 process.	Revised Permit Conditions V.4.D include groundwater monitoring. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit.
Russell Jim	SST	18. to revise/include a Permit(s) condition(s) to ensure IQRPE certifications to comply with WAC 173-303-640(2) requirements and include certification of the SST leak integrity.	The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements.
Russell Jim	SST	19. Revise/include a Permit(s) condition(s) to require annual submittal of a schedule for closure of tanks to meet Milestones M-045-70 & M-62-45 requirements.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	20. Utilize Ecology’s Omnibus authority under WAC 173-303-815 to include a Permit(s) condition(s) to require annual submittal of a budget report which identifies necessary increases in personnel, equipment, and costs to support compliance with Milestones M-045-70 & M-62-45 requirements.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. This plan includes a schedule to achieve retrieval of waste. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	21. Revise/include a Permit(s) condition(s) to ensure closure of the SST System and compliance with Performance Standards is subject to the WAC 173-303-830/840 process.	Permit Condition V.4.H.2, Closure Performance Standards, cover this requirement. Closure plans will be submitted for all SST farms and will be modified per permit conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	22. Revise/include a Permit(s) condition(s) to ensure there is a re-evaluation of the Post-Closure care period after 30 years with subsequent periodic reviews [decadal] throughout the post-closure period (WAC 173-303-610(7) and WAC 173-303-610(8)). The post closure period should be at least 10 half lives of any isotope that is a COC (if it's plutonium that would be 240,000 years) or as long as there are potential health risks from any non-radioactive COCs.	Permit Condition V.4.K and Addendum K, Post-Closure Plan, cover these requirements.
Russell Jim	SST	23. Work closely with EPA Headquarters Region 10 RCRA staff to discuss what timeframes are acceptable for the State to allow for known or suspected leaking tanks to remain in that status pending development of treatment. The State should ensure they have written agreement with EPA about what is an acceptable time period to empty the known or suspected leaking tanks, and the non-compliant tanks.	Ecology has worked closely with EPA Region 10 to ensure regulatory requirements are being met. The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements. Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	24. Ecology should use its authority under the Resource Conservation Recovery Act (RCRA) to better regulate and protect Hanford workers from exposure to chemical vapors at Hanford, specifically with reference to those chemical vapors emanating from the high-level nuclear waste stored in Hanford's underground radioactive waste tanks [using omnibus authority of WAC 173-303-815(2).	USDOE has implemented the testing of a system called the NUCON TOC. This system will remove toxins from the possible vapors at the top portion of a tank. If this system is successful this may be used on other tanks with vapor issues. This project, NUCON RD&D Permit, can be seen on the Ecology permitting page for the Hanford Dangerous Waste Permit, Revision 8C.
Russell Jim	SST	25. Ecology should revise/include a Permit(s) condition(s) to ensure IQRPE certifications to comply with WAC 173-303-640(2) requirements and include certification of the SST leak integrity.	The Rev 9A Permit includes Addendum J-1, Leak Response Plan, for leak detection requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	26. Include Permit conditions to ensure closure of a RCRA TSD facility as described in the Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	Permit Condition V.4.H.2, Closure Performance Standards, cover this requirement. Permit Conditions V.4.D.3.b and V.4.H.2.b.i specifically addresses MTCA requirements. Closure plans will be submitted for all SST farms and will be modified per permit conditions.
Russell Jim	SST	27. Include a definition for ancillary equipment for all tanks systems. Suggest text: The term “ancillary equipment” will mean any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of dangerous waste from its point of generation to a storage or treatment tanks(s), between dangerous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site. These are to be regulated as a part of the tank system and are to be considered subject to WAC 173-303-640 closure regulations.	In the Permit Conditions the Ancillary equipment definition has been updated to reference information within Addendum A, Part A Form and Addendum H, Tier 1 Closure Plan, which will have more information on the type of ancillary equipment and how it will be closed.

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Russell Jim	SST	28. Include the following as Permit conditions: The following are general permit conditions for SST system retrieval activities/actions developed from the TWRWP document for the C-110 tank but are relevant to the retrieval process for all SST tanks. Include a permit condition requiring these documents be submitted to Ecology for review and approval and inclusion in Addendum H as an attachment (e.g. H.1). Include/revise permit conditions V.4F.1.a.i.(b) and V.4.F.2 to require these documents subject to the WAC 173-303-830 regulations. Include the following as permit conditions; Compliance Schedule items for the SST permit. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit Conditions V.4.F.1.a.i.(b) and V.4.F.2 are no longer needed in the Permit Conditions and have been removed. This information has been included in Addendum H, Tier 1 Closure Plan.
Russell Jim	SST	29. The Permittees will initiate retrieval operations of the XXX tank by XXXX. Retrieval will be completed within 12 months of start date. Include date compliant with WAC 173-303-610(3) requirements. Should an extension be required, a modification can be requested per WAC 173-303-830-840.	Tri-Party Agreement series M-062-40 requires USDOE to work with Ecology to create a System Plan every three years to remove waste from the SSTs. The priority tanks are the leaking tanks that still have waste stored in them. The Rev 9A Permit will be revised if needed to support a final System Plan.
Russell Jim	SST	30. The Permittees shall conduct retrieval activities in accordance with tank specific TWRWPs and these tank management during retrieval conditions. Should there be any deviations from the TWRWP; a field change notice will be submitted for Ecology review and approval.	This information has been included in Addendum H, Tier 1 Closure Plan.
Russell Jim	SST	31. The Permittees will submit for Ecology review and approval, all available information supporting tank integrity.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	32. The Permittees will perform tank leak assessments and provide data to Ecology review and approval.	The Rev 9A Permit will include Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered.
Russell Jim	SST	33. The Permittees will perform pre and/or post retrieval sampling and analysis activities. These activities will be consistent and in accordance with the Sampling and Analysis (SAP) Conditions XXX. The SAPs will ensure compliance with Ecology Publication # with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. a) Ensure the following to be included as required: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be	Permit Conditions V.4.H.2 and V.4.H.7 and Addendum H, Tier 1 Closure Plan support these requests.

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		analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process;	

Commenter	Unit Group	Comment	Comment Response
		§ Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis.	

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		§ Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration);	

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		§ Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the SST permit.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	34. The Permittees will provide waste volume and physical properties of waste stored in tanks with submittal of closure plan for individual tanks; subject to WAC 173-303-830.	Permit Conditions V.4.H.2 and V.4.H.7 and Addendum H, Tier 1 Closure Plan support this request.
Russell Jim	SST	35. The Permittees will update the BBI as new tank waste inventory data becomes available and submit this information for Ecology review.	This information has been included in Addendum H, Tier 1 Closure Plan.
Russell Jim	SST	37. The Permittees will provide to Ecology risk and hazard values information in the post retrieval SAP.	Permit Conditions V.4.H.6 supports this request.
Russell Jim	SST	38. The Permittees will perform SAP activities in accordance with RPP 23403, Single-Shell Tank Component Closure Data Quality Objectives, and RPP-PLAN-23827, Sampling and Analysis Plan for Single-Shell Tanks Component Closure" and the HNF-SD-WM-EV-053, Double-Shell Tank Waste Analysis Plan". (Note: or the appropriate documents)	Permit Condition V.4.H.7 supports this request.
Russell Jim	SST	39. The Permittees will submit for Ecology review and approval, the HNF-SD-WM-EV-053, Double-Shell Tank Waste Analysis Plan. The plan will include how samplings of SST transfers are to be performed. (Note: title of document subject to change but required)	This information has been included in the Double-Shell Tank System, Addendum B, Waste Analysis Plan.
Russell Jim	SST	40. The Permittees will ensure that there are no pathways for water or additional wastes to enter the SST system tanks.	Permit Conditions V.4.A.3.c through V.4.A.3.h describe requirements for Interim Surface Barriers for each WMA.
Russell Jim	SST	41. The Permittees will submit an updated closure plan to Ecology for review and approval in accordance with Addendum XX (Compliance Schedule). The closure plan shall include a detailed description of the closure of Unplanned Releases (UPRs). UPRs will be closed in accordance with the requirements of WAC 173-303-283.	The Rev 9A Permit includes Addendum H, Tier 1 Closure Plan. This information has been included in the WMA C Addendum H, Tier 2 Closure Action Plan. The rest of the Tier 2 Closure Action Plans for each WMA will be submitted as permit modifications per TPA Milestone schedule.
Russell Jim	SST	42. The Permittees will submit an updated Closure Plan to include all tank farm components associated with the SST System and closure path under WAC 173-303-640 & -610.	The Rev 9A Permit includes WMA C Addendum H, Tier 3 Closure Activity Plans. These include tanks and components. The rest of the Tier 2 Closure Action Plans and Tier 3 Closure Activity Plans for each WMA will be submitted as permit modifications per TPA Milestone schedule.
Russell Jim	SST	43. The Permittees will provide closure documentation to Ecology for component closure in accordance with permit condition XXX.	Permit Condition V.4.K supports this request.

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Russell Jim	SST	44. The Permittees will submit an updated Part A form with a comprehensive list of all SST associated pipelines and ancillary equipment	This information is included in the WMA C Addendum H, Tier 3 Closure Activity Plans. These include tanks and components. The rest of the Tier 2 Closure Action Plans and Tier 3 Closure Activity Plans for each WMA will be submitted as permit modifications per TPA Milestone schedule.
Russell Jim	SST	45. The Permittees will submit a detailed description(s) (e.g., how equipment is tested/maintained, etc), in addition to those provided in the TWRWPs, of the physical equipment required to retrieve waste from each of the SST System tanks. This equipment will be added to the SST System Part A component list requiring closure. This information shall be submitted to Ecology for review and approval within 90 days of tank retrieval and subject to WAC 173-303-830 process.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information. Also, Addenda H, Tier 3 Closure Activity Plans will detail closure of ancillary/component equipment.
Russell Jim	SST	46. The Permittees shall ensure that all in-tank cameras or similar devices are installed and maintained during retrieval activities per vendor requirements. The camera must be installed in such a manner to facilitate waste retrieval and aid in minimizing any liquid in the tanks.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system and includes the camera equipment during retrieval.
Russell Jim	SST	47. The Permittees shall ensure that all in-tank cameras or similar devices are installed such that the tank bottom or tank bottom as the extent technical feasible is visible after tank retrieval.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system and includes the camera equipment during retrieval.
Russell Jim	SST	48. The Permittees shall submit all equipment specifications and vendor documentation to Ecology for review. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system.
Russell Jim	SST	49. The Permittees shall submit, for Ecology review and approval, information about the DST and the backup DST identified for waste receipt. The supernatant source tank will also be identified with submittal. This information will be included in an appendix to the TWRWP. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system and transfers into the DSTs.

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Russell Jim	SST	50. The Permittees will submit to Ecology detailed descriptions of specific tank retrieval instrumentation used to monitor process control data (e.g., pressures and flow rates). This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system.
Russell Jim	SST	51. The Permittees will ensure, as applicable, all ENRAFs are maintained and operating according to vendor specifications. Information gathered by ENRAF technology will be provided to Ecology for review. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system including ENRAF use and maintenance.
Russell Jim	SST	52. The Permittees shall provide for Ecology review and approval, tank specific detailed description(s) of the ventilation system and associated equipment, including how it will be maintained and what actions will be taken should it malfunction. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information of the ventilation system and reference 00-05-006, "Hanford Site Are Operating Permit" for detailed ventilation systems.
Russell Jim	SST	53. The Permittee will provide for Ecology review and approval, the SS tank to which the exhauster condensate drainage will be routed. A compatibility analysis will be performed, as necessary, should other than the source SST be the receiving tank.	This is covered in the 200-IS-1 Operable Unit.
Russell Jim	SST	54. The Permittees shall manage riser equipment used during retrievals as hazardous waste in accordance with WAC 173-303-640 [as ancillary equipment or under WAC 173-303-815(2)].	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information of how the equipment will be either be removed or if they will leave equipment in place that will be disposed of when the tank is closed.
Russell Jim	SST	55. The Permittees shall manage all portable valve boxes as SST system component/ancillary equipment.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information valve boxes.

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Russell Jim	SST	56. The Permittees shall submit for Ecology review and approval, detailed descriptions of the valve box leak detection system, including actions to be taken in the event that there is a leak detected in a portable valve box. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information valve boxes and leak detection.
Russell Jim	SST	57. The Permittees shall ensure that portable valve box leak detectors are operating and maintained in accordance with vendor specifications. This information shall be provided to Ecology as an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information valve boxes and leak detection.
Russell Jim	SST	58. The Permittees shall submit for Ecology review and approval, detailed descriptions of the valve/transfer line diversion box including actions to be taken in the event that there is a leak detected in a valve/transfer line diversion box. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information valve boxes and leak detection.
Russell Jim	SST	59. The Permittees shall manage all valve/transfer line diversion boxes as SST system component/ancillary equipment.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include information valve/transfer line diversion boxes.
Russell Jim	SST	60. The Permittees shall manage all pumps as SST system component/ancillary equipment.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	61. The Permittees shall submit for Ecology review and approval, detailed descriptions of the pumps including actions to be taken in the event that there is a leak detected in a pump. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	62. The Permittees shall manage all steel pits as SST system component/ancillary equipment.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	63. The Permittees shall submit for Ecology review and approval, detailed descriptions of the steel pits including actions to be taken in the event that there is a leak detected in a steel pits. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	64. The Permittees shall manage all leak detectors (e.g., conductivity probe, a thermal leak detector, or another type of leak detector device) as SST system component/ancillary equipment.	The Rev 9A Permit will include Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered. RPP-9937, Single-Shell Tank System Leak Detection and Monitoring Functions and Requirements, also covers this requirement and is revised annually.
Russell Jim	SST	65. The Permittees will provide detailed description (s) of transfer pump shut off retrieval activity procedure(s) (i.e., how the leak detection system for the hoses used for waste transfer is designed) for Ecology review and approval. This information will be included in an appendix to the TWRWP.	The Rev 9A Permit will include Addendum J-1, Leak Response Plan, for leak detection and requirements when a new leaking tank is discovered.
Russell Jim	SST	66. The Permittees will submit for Ecology review and approval, detailed descriptions on secondary containment structure and the procedures, including overflow calculations. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	67. The Permittees will submit for Ecology review and approval, detailed descriptions of the closed-circuit television monitoring system. These descriptions shall include actions to be take should the system malfunction. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	68. The Permittees will submit for Ecology review and approval detailed description (s) on raw water usage. This description will include estimates of volumes and disposal destinations. This information will be included in an appendix to the TWRWP.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	69. The Permittees will submit for Ecology review and approval, a tank specific Process Control Plan. The Process Control Plan shall include routine operational actions and specifications [in accordance with OSD-T-151-00013, Operating Specifications for Single-Shell Waste Storage Tanks or the appropriate document.], and including calculations necessary to determine a balanced pumping rate. The plan shall also include possible action scenarios to be taken should there be a deviation from routine operational activities. This plan will be located in Addendum XX. 41.1) the Process Control Plan will include a tank specific Waste Retrieval Summary Data Table similar to Table 3-2, RPP-33116R2.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	70. The Permittees will ensure that tank liquid levels are maintained below the maximum waste level designated in the process control plan.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	71. The Permittees will submit for Ecology review and approval, all monitoring plans. These plans will be located in Addendum XX.	Revised Permit Conditions V.4.D include groundwater monitoring. The Rev 9A Permit includes an Addendum D, Groundwater Monitoring Plan for each Waste Management Unit.
Russell Jim	SST	72. The Permittees will submit for Ecology review and approval, the HNF-SD-WM-OCD-015, Tank Farm Waste Transfer Compatibility Program or the appropriate document. This document will describe the process for determinations that tank-specific DST supernates are compatible with tank-specific SST wastes. It s to include calculations to determine waste compositions and assessments of those compositions. This information will be located in Addendum XX. (Note: revise and include in the DST permit for consistency with the SST permit).	This information has been included in the Double-Shell Tank System, Addendum B, Waste Analysis Plan.
Russell Jim	SST	73. The Permittees will submit formal tank specific compatibility assessments, for Ecology review and approval, 45 days prior to initiation of retrieval.	This information has been included in the Double-Shell Tank System, Addendum B, Waste Analysis Plan.

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Russell Jim	SST	74. The Permittees will submit for Ecology review and approval, Waste Stream Profile Sheets. These documents will describe the applicable sections of WAC 173 303-300; Title 40, Code of Federal Regulations, Part 761, “Polychlorinated Biphenyls (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions” (40 CFR 761); 40 CFR 268, “Land Disposal Restrictions”; and WAC 173-303-140, “Land Disposal Restrictions,” and also requires a waste compatibility assessment pursuant to HNF SD-WM-DQO-001, Data Quality Objectives for Tank Farms Waste Compatibility Program, to meet WAC 173-303-395(1). This information will be located in Addendum XX.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	75. The Permittees will ensure that liquid will not be added to an SST for the sole purpose of obtaining a level measurement. However, level data will be obtained on an opportunistic basis when performing flushes or during retrieval activities in the latter stages or at the end of the waste retrieval process. This data will be submitted for Ecology review. This information will be located in Addendum XX.	This information has been included in Addendum C, Process Information.
Russell Jim	SST	76. The Permittees will submit for Ecology review and approval, a detailed description(s) of how the volume of solids removed per unit volume of sluicing fluid removed from the tank or per unit of time or transfer will be tracked. This description will include the rationale for selection of units and methods used. This information will be located in Addendum XX.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	77. The Permittees will submit for Ecology review and approval, the following information prior to a decision to terminate field retrieval activities: b) System performance and efficiency data. c) In-tank visual confirmation of tank condition and waste retrieval. d) Preliminary volume estimates using tank geometry and in-tank structural features. e) Presentation and discussion of alternate system configurations and process modifications to enhance retrieval performance. f) Presentation and discussion of residual sample location. Examination of in-tank images to observe/record waste contours and characteristics. g) Estimation of waste retrieval performance efficiency and remaining waste volume. h) Using performance data to demonstrate that a consistent pattern is present indicating limits of technology have been reached. i) Evaluation of waste retrieval performance against system limitations	Appendix C: Part 1 of Consent Decree No. CV-08-5085-RMP, requires the permittees to submit a Request to Forego Implementing a Third Retrieval Technology. They supply all information for Ecology to review and approve completing retrieval activities.
Russell Jim	SST	78. The Permittees will submit for Ecology review and approval, the TFC-ENG-CHEM-P-47, Single-Shell Tank Retrieval Completion Evaluation and any associated attachments or the appropriate document. This information will be located in Addendum XX.	Appendix C: Part 1 of Consent Decree No. CV-08-5085-RMP, requires the permittees to submit a Request to Forego Implementing a Third Retrieval Technology. They supply all information for Ecology to review and approve completing retrieval activities.
Russell Jim	SST	79. The Permittees will follow the procedures outlined in the TFC-ENG-CHEM-P-47, Single-Shell Tank Retrieval Completion Evaluation (as amended) and associated attachments (or the appropriate documents). Any deviations and or recommend configuration or procedure changes shall be submitted for Ecology review and approval prior to initiation.	Appendix C: Part 1 of Consent Decree No. CV-08-5085-RMP, requires the permittees to submit a Request to Forego Implementing a Third Retrieval Technology. They supply all information for Ecology to review and approve completing retrieval activities.
Russell Jim	SST	80. The Permittees will submit for Ecology review, weekly status retrieval activity reports. These reports will include residual volume estimates and performance parameters. Status reports are continued until waste retrieval operations cease. These status retrieval activity reports maybe submitted via email and will be located in an attachment to Addendum XX.	The Permittees conduct bi-weekly meetings with Ecology to provide updates to retrieval activities. These will continue until all waist has been removed from the SSTs.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	81. The Permittees will submit for Ecology review and approval, an updated XXX, RPP-23403 and XXX, RPP-PLAN-23827 (or the appropriate documents), to include a detailed description of how residual waste volume will be determined. This description will include calculations to be used. This information will be located in Addendum XX.	Permit Condition V.4.H.7 supports this request.
Russell Jim	SST	82. The Permittees will submit for Ecology review and approval, within 7 days, notification of when the cumulative volume of supernatant liquid being recycled exceeds the estimated quantity of 1,000,000 gal, and for each incremental million gallon quantity recycled. Notification will be submitted via email and documented in an appendix to Addendum XX (Cumulative Volume Notification Emails).	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	83. The Permittees will ensure that subsequent to the use of supernatant during retrievals, a minimum of three tank heel rinses using a minimum volume of raw water that is three times the estimated residual waste volume will be performed.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	84. The Permittees will submit for Ecology review and approval, the updated Sampling and Analysis Plan that governs liquid sampling. This updated SAP will include a detailed description of the procedures for taking a liquid sample of tank specific DST supernatant used for sluicing to verify the 99Tc concentrations do not exceed levels protective of human health and the environment. It will also include a description of the procedures for taking a liquid sample to support corrosion control evaluations and 99Tc concentration concentrations. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit Condition V.4.H.7 supports this request.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	85. The Permittees will ensure that, at the cessation of waste retrieval operations, the tank walls and heel will be flushed to the extent practical with water. 1) Flush water will not be purposely sprayed on the walls above the maximum level stated in the process control plan. 2) When performing the tank flushes, the flush water may be used to push some of the residual waste to a convenient sampling location. 2. a) A sample will be taken on residual wastes after tank flushes. 3) For each flush, the volume of water added will be metered and recorded. 4) The flush liquid will be pumped to a minimum heel following each flush addition. 5) ENRAF level gauge reading taken during final tank flushes will be used to support final tank residual waste volume measurements.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	86. Liquids retrieved during final tank flushes shall be transferred to the same DST receiving tank as received the tank specific SST wastes. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	87. The Permittees will submit for Ecology review and approval an updated SST Closure Plan to include a detailed schedule for the waste retrieval or liquid addition activities for each specific SST tank. This schedule will be submitted within 45 days prior to retrieval or addition of any liquids to any tank. The schedule will be located in Addendum XX. Modifications to the schedule will be in accordance with WAC 173-303-830. DOE previously agreed to do sampling and analysis for waste compatibility or during final rinses. WAC 173-303-610 also requires a closure schedule. (Note: revise and include in the DST permit for consistency with the SST permit).	The Rev 9A Permit includes Addendum H, Tier 1 Closure Plan. This information has been included in the WMA C Addendum H, Tier 2 Closure Action Plan. The rest of the Tier 2 Closure Action Plans for each WMA will be submitted as permit modifications per TPA Milestone schedule.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	88. The Permittees will submit for Ecology review and approval, waste compatibility analyses for inter-tank transfers for the DST supernates tank, the SST retrieval tank, and the DST receiving tank (should the DST receiving tank be different from the DST supernates tank). This information will be consistent with Condition(s) XX and will be located in Addendum XX. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	89. The Permittees will submit for Ecology review and approval, in a tank specific Process Control Plan, waste retrieval technologies to be employed for tank specific retrievals.	This information has been included in Addendum C, Process Information. Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system.
Russell Jim	SST	90. The Permittees will submit for Ecology review and approval, in a tank specific Process Control Plan, any aboveground batch receiver vessel(s). These vessel(s) will be added to the SST Part A ancillary equipment list.	This information is included in the Permit Conditions Unit Description.
Russell Jim	SST	91. The Permittees will ensure the WRS will be designed to will be designed to retrieve as much waste from the tank as technically possible with waste residues not to exceed 360 ft3 or the limit of technology, whichever is less in accordance with the requirements of HFFACO Milestone M 45 00	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs include this information.
Russell Jim	SST	92. The Permittees will submit for Ecology review and approval, in a tank specific Process Control Plan, a waste retrieval system (WRS) design package to include, but not limited to , PFDs, Flowsheets, and Final Design drawings for all components of the WRS. 1) All components of the WRS will be considered as ancillary equipment. Final disposal of used WRS equipment (including HIHTLs) will be in accordance with WAC 173-303.	This information has been included in Addendum C, Process Information. Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system.
Russell Jim	SST	93. The Permittees will submit for Ecology review and approval, in a tank specific Process Control Plan, a detailed description(s) of the WRS design functions and requirements for all components of the WRS.	This information has been included in Addendum C, Process Information.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	94. The Permittees will ensure and certify by an IQRPE, 'existing buried waste transfer lines routed to the SST system have been isolated to prevent the inadvertent transfer of waste or intrusion of water into the tanks. Following waste retrieval activities, new transfer lines and auxiliary equipment will be flushed pursuant to Condition XXX, and disposed in accordance with Condition XXX	Permit condition V.4.C.5 set requirements for new component design and installation.
Russell Jim	SST	95. The Permittees will ensure, should any new transfer lines, ancillary equipment, or structure's flushes not be directed to the receiver DST or returned to the retrieval tank, the tank to which this waste is sent will have a compatibility analysis performed prior to acceptance of such waste flushes. (Note: revise and include in the DST permit for consistency with the SST permit).	Permit condition V.4.C.5 set requirements for new component design and installation.
Russell Jim	SST	96. The Permittees will limit all post retrieval liquids, from ancillary equipment, returned to the retrieval tank to 20 gallons or less. Deviations from the 20 gallon or less limit will be submitted for Ecology review and approval prior to initiation of any actions, and in accordance with WAC 173-303-830. Include a permit condition/section for post retrieval activities.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	97. Should the permittee elect to re-use in-tank equipment, they must ensure that any decontamination liquids remaining in the retrieval tank is less than 20 gallons. Use of such equipment will be managed in accordance with TFC-OPS-WM-C-10, Contaminated Equipment Management Practices or equivalent document.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	98. Above-grade re-used retrieval equipment will be managed in accordance with TFC-OPS-WM-C-10, Contaminated Equipment Management Practices or equivalent document.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	99. The use of HIHTL will be managed in accordance with RPP-12711, Temporary Waste Transfer Line Management Program Plan or equivalent document. and in accordance with comment 'Condition 64.1.'	Permit Conditions V.4.J.10.a and V.4.J.10.b address this requirement.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	100. The Permittees will ensure and certify by an IQRPE that risers, pits, and/or caissons associated with specific SST tanks have been isolated to prevent intrusion(s) of wastes or water.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	101. The Permittees will submit for Ecology review and approval, all SST system construction review documentation(s). For all new SST System equipment, a written integrity assessment, reviewed and certified by an IQRPE, attesting that the transfer-related equipment and associated transfer lines are suitable for use during waste retrieval operations will be prepared in accordance with WAC 173-303-640, will be submitted for Ecology review and approval. The IQRPE assessments will be comply with RPP-16922, Environmental Specification Requirements, latest revision, Section 13.0, IQRPE Assessment Need and Permitting Decision Logic. This information will be located in Addendum XX.	Permit Condition V.4.C.5 supports this request.
Russell Jim	SST	36. The Permittees will submit a Sampling and Analysis Plans (SAP) for post retrieval activities for Ecology review and approval and subject to WAC 173-303-830.	Permit Condition V.4.H.7 supports this request.
Russell Jim	SST	102. The Permittees will submit for Ecology review and approval, tank specific maps identifying the location of drywells to be monitored during retrieval. This information will be located in Addendum XX.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	103. The Permittees will submit for Ecology review and approval OSD-T-151-00031, Operating Specifications for Tank Farm Leak Detection and Single Shell Tank Intrusion Detection, Latest Revision, CH2M HILL Hanford Group, Inc., Richland, Washington or equivalent document. Any changes to procedures will be submitted in accordance with WAC 173-303-830.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	104. Operating status needs to be defined. It is suggested that operational status terminates upon initiation of any pre-retrieval preparations actions. At this point, final status closure standards of WAC 173-303-610/640 are applied.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	105. The Permittees will submit tank specific Preliminary Isolation Evaluations documents, including associated support documentation (e.g., plot plans, drawings, etc) in a TWRWP. Any changes to procedures will be submitted in accordance with WAC 173-303-830.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	106. The Permittees will submit for Ecology review and approval an appendix(s) to the SST System Closure Plan which describes in detail tank-specific isolation or removal of in-tank retrieval and /or previous operations equipment (e.g., mobile retrieval equipment, tape measures, debris [bricks]). These items will be included in the compliance schedule and subject to WAC 173-303-830 process.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this. Also, Addenda H, Tier 3 Closure Activity Plans will detail closure of ancillary/component equipment.
Russell Jim	SST	107. The Permittees will submit for Ecology review and approval an appendix(s) to the SST System Closure Plan which describes in detail tank-specific isolation or removal pipelines (e.g. inter-tank, other waste transfer pipelines, etc.) and ancillary equipment (e.g., sumps, pumps, etc.) associated with the SST System. These items will be included in the compliance schedule and subject to WAC 173-303-830 process.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this. Also, Addenda H, Tier 3 Closure Activity Plans will detail closure of ancillary/component equipment.
Russell Jim	SST	108. The Permittees will conduct post-retrieval intrusion monitoring will be done in accordance with OSD-T-151-00031, Operating Specifications for Tank Farm Leak Detection and Single Shell Tank Intrusion Detection, Latest Revision, CH2M HILL Hanford Group, Inc., Richland, Washington or the appropriate document. Any changes to procedures will be submitted in accordance with WAC 173-303-830.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	109. The Permittees will submit for Ecology review and approval a permit modification to update the tank(s)-specific Closure Plan(s) to incorporate post-retrieval monitoring requirements. This modification will include a detailed description of intrusion monitoring [from all sources] and soil/vadose zone monitoring and it is subject to WAC 173-303-830 process.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.
Russell Jim	SST	110. The Permittees will submit for Ecology review and approval a schedule for post-retrieval WMA(s) final risk assessment(s).	Permit Condition V.4.H.6 supports this request.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	SST	111. The Permittees will submit for Ecology review and approval a permit modification to update the tank(s)-specific and WMA s Closure Plan(s) to incorporate disposition of Unplanned Releases (UPRs). it is subject to WAC 173-303-830 process.	The Rev 9A Permit includes Addendum H, Tier 1 Closure Plan. This information has been included in the WMA C Addendum H, Tier 2 Closure Action Plan. The rest of the Tier 2 Closure Action Plans for each WMA will be submitted as permit modifications per TPA Milestone schedule.
Russell Jim	SST	112. The permittee, in addition to retrieval activities outlined in tank specific TWRWPs, will apply where appropriate “lessons learned” from previous tank retrievals. This includes but is not limited to, the following: j) Equipment materials are compatible with the environmental conditions of their intended application. k) Use of adequate temperature controls (e.g., heat tracing, air conditioning) to ensure equipment performs as designed. l) Selection of radiation resistance sealants and gaskets m) Cold test all fluid connections and components before deployment to ensure leak tightness. n) Incorporate features to flush components that transport slurries to prevent/correct blockages. Design the features to operate with minimal changes to the system and operator intervention. o) Design systems to facilitate maintenance and support functions while incorporating safety and ALARA features. p) Provide access to instrumentation and other components requiring servicing and maintenance that does not require breaching the confinement system. q) Simplify system control screens to maximize operator efficiency and recognition of key operational parameters/data. r) Incorporate features to unplug piping systems in the event of a line blockage. s) Conduct comprehensive field walk-downs before system design to validate design assumptions and document as-found field conditions. t) Identify and specify equipment shipping, handling, and lifting requirements to facilitate safe and efficient handling and deployment of equipment. u) Conduct comprehensive post-shipping inspections to identify equipment damage and defects. v) Minimize the use of threaded joints in equipment design.	Permit Condition V.4.H.3.c requires the permittees to submit a Tank Waste Retrieval Work Plan (TWRWP) in accordance with HFFACO Appendix I, Section 2.1.3, TPA Milestone M-045-135. Each tank or WMA have or will have a TWRWP which details the waste retrieval system. The TWRWPs address this.

Commenter	Unit Group	Comment	Comment Response
		w) Identify and obtain all spare parts required for system maintenance and for equipment repairs for anticipated failures.	
Russell Jim	General	SEPA :Until all corrective action mitigations are defined and in place; there is no defensible justification for a DNS. Furthermore, since closure requirements are fully adequate to address all issue associated with a closing dangerous waste management unit, Ecology is requested not to close these dangerous waste management units under CERCLA corrective action but rather the WAC 173-303-610 regulations.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.
Russell Jim	LLBG Green Islands	1. There is no 'approved Sampling and Analysis Plan' as stated.	An approved Sampling and Analysis Plan will be part of the final Work Plan for the CERCLA 200-SW-2 Operable Unit.
Russell Jim	LLBG Green Islands	1. Revise the Part A form to include all trenches as subject to Dangerous Waste Regulations until such time that characterization (including actively digging up waste to be able to conduct sampling) demonstrates it is not RCRA waste. With the first submittal of the Part A for interim status in 1985, the U. S. Department of Energy (DOE) declared the process codes and capacities, dangerous waste codes, and unit boundaries for the Low Level Burial Grounds (LLBG). At issues are whether or not any new information gathered (without actual characterization) will substantiate the claims of non-use, and the closure of a sub-portion (i.e. the 'unused trenches') of a subunit (i.e. the LLMW Burial Grounds TSD) independent and to different closure standards of the rest of the facility (i.e. the entire Hanford Facility under the RCRA permit). Removal of the 218-W-6 landfill from 200-SW-2 OU and into 200-OA-1 is unwarranted at this time and requires clarification in the permit.	The Green Islands Part A Form has been revised to describe all the Green Islands and the burial grounds in which they reside.
Russell Jim	LLBG Green Islands	2. Concurrent assertion of both closure and corrective action authorities is duplicative since closure requirements are fully adequate to address all issues associated with closing a dangerous waste management unit. Revise permit to require cleanup under WAC 173-303-610 regulations.	Closure of the burial grounds (which contain the Green Islands) is being addressed under the CERCLA Operable Unit 200-SW-2. The closure of these units is being done as a coordinated closure which addresses both RCRA and CERCLA requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	3. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. Include Addenda B, E, F, H, and J. If unavailable, Ecology should draft them subject to WAC 173-303 requirements.	The current Rev 9A Sitewide Permit Renewal includes all required information to write a permit. All of the documents going out for public comment for LLBG Green Islands have complete submittals.
Russell Jim	LLBG Green Islands	4. No Performance Standards included in permit. Required by WAC 173-303-283. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	An approved Sampling and Analysis Plan (SAP) will be part of the final Work Plan for the CERCLA 200-SW-2 Operable Unit. Closure Performance Standards will be addressed in the SAP.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	5. The use of the words 'Ecology proposes to use the results of the 200-SW-2 OU investigation, etc' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; it is prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements. Permit lacking the details to demonstrate how the remedy process and corrective action will result in effective containment of contamination remaining below the trenches. At what depth will MTCA standards for landfills be applied?	Closure of the burial grounds (which contain the Green Islands) is being addressed under the CERCLA Operable Unit 200-SW-2. The closure of these units is being done as a coordinated closure which addresses both RCRA and CERCLA requirements. Once the CERCLA documents are complete, the RCRA Permit is revised to reflect actual closure activities Per WAC 173-303-610.
Russell Jim	LLBG Green Islands	6. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303]. The Part B Application requires submittal of a Closure Plan and Post Closure Plan which complies with WAC 173-303-610(3) and -610(8). Specific requirements of WAC 173-303-665(6), WAC 173-303-630(10), and WAC 173-303-806(4)(h)(v), must also be met. Estimates of the maximum inventory of dangerous wastes over the active life of the facility are given in process design capacities rather than actual inventory of dangerous wastes which is the requirements. Required closure schedule missing; estimates of the time required to treat or dispose of all dangerous waste inventory and of the time required to place a final cover must be included. CERCLA actions under HFFACO should be integrated with the Permit rather than vice-a versa.	Closure of the burial grounds (which contain the Green Islands) is being addressed under the CERCLA Operable Unit 200-SW-2. The closure of these units is being done as a coordinated closure which addresses both RCRA and CERCLA requirements. Once the CERCLA documents are complete, the RCRA Permit is revised to reflect actual closure activities Per WAC 173-303-610. A coordinated closure plan has been developed for the Green Islands and is included as part of the Rev 9A Sitewide Permit Renewal.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	7. The milestones referenced are inadequate and misleading. The Addendum C statement that designation as dangerous waste occurs after transfer of the waste to another unit or to ERDF, and no waste handling or treatment occurs within these closure units is incorrect. All waste had to be designated at point of origin and LDRs applied prior to placement. These units have been actively managed and any mixed wastes are already subject to WAC 173-303. There has been unauthorized placement and/or storage of mixed wastes. Include permit condition(s) for the management/treatment of all retrievably stored waste. The storage requirements at 40 CFR 268.50, incorporated by reference by WAC 173-303-140, prohibit storage in lieu of treatment.	Closure of the burial grounds (which contain the Green Islands) is being addressed under the CERCLA Operable Unit 200-SW-2. The closure of these units is being done as a coordinated closure which addresses both RCRA and CERCLA requirements. Once the CERCLA documents are complete, the RCRA Permit is revised to reflect actual closure activities Per WAC 173-303-610. A coordinated closure plan has been developed for the Green Islands and is included as part of the Rev 9A Sitewide Permit Renewal.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	8. Write Addendum B- SAP- to comply with WAC 173-303-110 and include the following as required: • Include permit condition requiring compliance with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. • Sampling and Analysis Plan and criteria as informed by the results of the Risk Budget Tool. Require impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool. • Statistically based sampling design and unfiltered sampling for SAPs. • Use of the observational approach rather than the analogous site approach form of characterization. • Surface geophysical and radiological surveys to help delineate the trenches, partial exhumation of the trenches to allow evaluation of the risk of the waste on a container by container basis, and selective removal of high-risk items, and allowing low to no risk items to remain. • Any changes to the SAP regarding addition or elimination of COCs are subject to the WAC 173-303-830/840 modification process (including public reviews). • Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for	An approved Sampling and Analysis Plan will be part of the final Work Plan for the CERCLA 200-SW-2 Operable Unit. The LLBG Green Islands are closing under Coordinated Closure in the RCRA Site-wide Permit. This means that the RCRA Closure activities will be addressed as part of the CERCLA work documents for the 200-SW-2 Operable Unit. There are TPA milestones which cover how and when the information from the approved CERCLA work documents is updated in the RCRA Site-wide Permit. The Addendum H, “Closure Plan” for the LLBG Green Islands references the applicable CERCLA documents and includes the approved RCRA closure performance standards to ensure enforceability under RCRA.

Commenter	Unit Group	Comment	Comment Response
		analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and	

Commenter	Unit Group	Comment	Comment Response
		procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting;	

Commenter	Unit Group	Comment	Comment Response
		§ Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following:	

Commenter	Unit Group	Comment	Comment Response
		§ Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 'Green Islands' LLBG permit.	
Russell Jim	LLBG Green Islands	9. Permit condition V.26.B.3 is incomplete. Compliance should also include M-91-43, 44, and 46 (including subsections).	The cited permit condition no longer exists. TPA Milestones applicable to the LLBG Green Island are discussed in Addendum H, "Closure Plan". There are unit-specific permit conditions related to closure activities for the LLBG Green Islands.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	10. Edit to include permit condition(s) requiring vadose zone monitoring. The SWBGs have the potential to release high levels of soil gases and chemicals. Vadose zone monitoring can be used to detect such releases before they reach groundwater.	Part IV CA-1 of the RCRA Site-wide Permit includes the 200-SW-2 Operable unit, of which LLBG Green Islands are a part. TPA Milestones M-15-93B and M-15-93C address preparation of the RCRA FI/CMS & CERCLA RI/FS reports and initiation of field work for the 200-SW-2 Operable Unit, respectively. The LLBG Green Islands will close under Coordinated Closure, which means all required RCRA activities will be addressed as part of the CERCLA cleanup activities. An Addendum D, “Closure Plan” will be included in the RCRA Site-wide Permit, which will reference the CERCLA work documents and list the required RCRA closure performance standards. This closure plan is updated when the CERCLA documents are complete. TPA Milestones require the permit to be updated within a specific timeframe of CERCLA document completion.
Russell Jim	LLBG Green Islands	11. Include permit condition(s) requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops. More information on the sub-surface geology is needed as the monitoring wells are no longer valid because there is no groundwater for some of these wells.	Compliant Groundwater Monitoring Plans for each of the Green Island burial grounds have been prepared.
Russell Jim	LLBG Green Islands	12. Edit/include a Permit condition(s) to require a groundwater monitoring plan in compliance with WAC 173-303-645,-610, -600, and -665. Include a permit condition(s) requiring the identification of the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Identify dangerous constituents concentration limits, point of compliance, compliance period (at a minimum, it should be specified to be the entire time the permit is in effect – 10 years), and other general groundwater monitoring requirements.	Compliant Groundwater Monitoring Plans for each of the Green Island burial grounds have been prepared.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Green Islands	13. Discussion within Addendum D does not meet the requirements of WAC 173-303 for groundwater monitoring. Addendum D is a Groundwater monitoring plan for Interim Status Permitted facilities. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The Groundwater plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). The permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. • The claim in Addendum C that there is no reason to believe that there are releases affecting groundwater is at odds with DOE letter 12-AMRP-0030, dated May 10 2012. Indicator parameter results exceeded critical mean comparison values for the treatment, storage, and/or disposal (TSD) unit.	Compliant Groundwater Monitoring Plans for each of the Green Island burial grounds have been prepared.
Russell Jim	LLBG Green Islands	14. Include title and hotlink to reference for public access to document: Refer to the LLBG, 'Green Islands' Dangerous Waste Training Plan for a complete description of coursework in each training category.	The revised Addendum G (Personnel Training) covers all training requirements for this unit.
Russell Jim	LLBG Green Islands	15. Revise Training Matrix as follows to include closure requirements and groundwater monitoring requirements: Training Category* Permit Attachment 5 Training Category General Hanford Facility training Contingency Plan training Emergency Coordinator training Operations & Closure Training Low-Level Burial Grounds – Trenches 31 & 34 Orientation Program Emergency Response (contingency plan) Emergency Coordinator training General Waste Management Container Management Landfill Ground Water Monitoring Job title/position Regulatory Compliance Staff X X X X X X Nuclear Chemical Operator X X X X X	The revised Addendum G (Personnel Training) covers all training requirements for this unit.

Commenter	Unit Group	Comment	Comment Response
		Environmental Compliance Officer X X Operations Supervisor X X X X X X Non-Resident Waste Service Provider X X X Non-Resident Sampler X X Field Groundwater Sampler X X X X • Groundwater well security & maintenance. X X • Equipment type [e.g., pumps, monitoring & sampling equipment], operational procedures and equipment maintenance. X X • Collecting, packaging & shipping of samples to field & off-site labs (including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering). X X • Chain of custody X Surveillance Personnel X X X X X X X • Security inspections X • Surface inspections X • Benchmark inspections X • Groundwater Well inspections X X • Inspection of erosion damage & vegetative cover. X X • Replacement procedures for emergency & monitoring equipment X Well installation activities X X X X X	
Russell Jim	General	SEPA: DNS base on previously submitted SEPA checklists and prior determinations. New permits require new evaluations of current operations.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	1. Edit /revise permit conditions to ensure consistency with DST permit conditions.	Reject Comment - The LERF/200 Area ETF Permit Conditions as written satisfy the regulations for containers, tanks, and surface impoundments. The DST conditions are for tanks and many of the DST conditions do not apply to LERF/200 Area ETF. Without being more specific, Ecology feels that the current LERF/200 Area ETF conditions are consistent with the DST conditions.
Russell Jim	LERF/ETF	2. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-640(7); only WAC 173-303-640 is hyper-linked and not the necessary (7) portion).	Reject comment - Ecology has removed all hyperlinks from the Rev. 9A permit.
Russell Jim	LERF/ETF	3. Revise Addendum B, Section B.7 Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda B, Waste Analysis Plan that fulfills all WAC requirements. These requirements are the basis of Ecology Publication #09-05-007.
Russell Jim	LERF/ETF	4. To ensure secondary containment system capacity requirements (WAC 173-303-630(7) are met; Include/revise a permit condition limiting to 50 percent of floor area of the container storage (22.9 by 8.5 by 0.15 meters) to be occupied by containers at any one time. [See pg. 17 Addendum C, line 1, Section C.3.4.3].	Reject Comment - Secondary containment capacity requirements meet the regulations and are sufficient as written.
Russell Jim	LERF/ETF	5. To ensure compliance with Addendum C, Revise Waste Acceptance Permit conditions to identify the criteria for receiving new waste WTP streams at ETF. Take into consideration the uncertainty of characterization and volumes of waste streams primarily coming from WTP and going to ETF, and ensure a robust and conservative waste acceptance criterion for ETF.	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment as a result of several Class 1 and 2 modifications to prepare the LERF and 200 Area ETF to receive DFLAW waste. The materials associated with these modifications were available for public comment. If additional modifications are required, they will be requested in accordance with WAC 173-303-830.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	6. Edit and explain in Addendum C Section C.6 the following text: because the 200 Area ETF main treatment train is a Clean Water Act, equivalent treatment unit [40 CFR 268.37(a)] incorporated by reference by WAC 173-303-140, generators are not required to identify underlying hazardous constituents for characteristic wastes pursuant to 40 CFR 268.9, incorporated by reference by WAC 173-303-140, for wastewaters (i.e., <1 percent total suspended solids and <1 percent total organic carbon)this precludes 10% or greater organics in waste streams to be processed at ETF. Delete Addendum B, Section B.2.2.2 Pg. 14, lines 6 & 7 statements that it would be impractical to define numerical acceptance or decision limits, etc. [see Section C.6 Air Emissions Control: Subpart BB (WAC 173-303-691) is not applicable because aqueous waste with 10 percent or greater organic concentration would not be acceptable for processing at the ETF.]	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment. Now, the text in Addendum C and Addendum B are consistent. Both state that "the requirements of 40 CFR 264, Subpart BB (WAC 173-303-691) are not applicable to the LERF or 200 Area ETF because waste streams with concentrations of organics equal to or higher than 10 percent are not accepted at the LERF or 200 Area ETF".
Russell Jim	LERF/ETF	7. Include more details in Addendum C (in the appropriate Section(s)) as to what human health or environmental hazards may exist as a result of facilities operations and the controls in place to mitigate or eliminate these concerns	Reject Comment - Information on human health and environmental hazards that may exist as a result of facility operations, and the controls in place to mitigate or eliminate these hazards, can be found in Addendum J, Contingency Plan, and Addendum F, Preparedness and Prevention. Addendum C contains the correct and necessary level of detail to satisfy its purpose and function.
Russell Jim	LERF/ETF	8. Include more details in Addendum C, Pg. 8, line 3, Section C.2.2 Effluent Treatment Facility Operating Configuration to describe potentially abnormal feed streams which could threaten human health or the environment and how these will be documented.	Reject Comment - The necessary level of detail on how to deal with potentially abnormal feed streams and how these will be documented is already provided in Addendum B, Waste Analysis Plan, Addendum F, Preparedness and Prevention, and Addendum J, Contingency Plan.
Russell Jim	LERF/ETF	9. Include more details in Addendum C, Pg. 10, line 39, Section Verification on what's done to the effluent returned to the LERF, should a treated effluent not meet Discharge Permit or Final Delisting requirements.	Reject Comment - Ecology does not believe that additional language is needed to explain what would happen if this should occur. The permit is clear that if it should ever happen, the waste would either be run back through the treatment process at ETF or would be piped back out to the LERF basins where it would mix with very large volumes of other wastes and these wastes would eventually be run through ETF for treatment.
Russell Jim	LERF/ETF	10. Include more details in Addendum C, Pg.11, line 40, Section Concentrate Staging on how the solids are removed to prevent fouling and to protect the thin film dryer, and to maintain concentrate tank capacity.	Ecology believes that the level of detail provided is adequate for permitting purposes and this type of detail is not a regulatory requirement.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	11. Include more details in Addendum C, Pg. 36, line 45, Section C.5.2.1.5 Internal and External Pressure Gradients on how the filter extracts the organic compounds ensuring the air is non-toxic.	Ecology believes that the level of detail provided is adequate for permitting purposes and this type of detail is not a regulatory requirement.
Russell Jim	LERF/ETF	12. Include details in Addendum C, Pg.12, line 14, Section Container Handling on safety precautions during manual recapping of filled containers and complies with WAC 173-303-630(5) requirements.	Ecology believes that the level of detail requested is provided in Addendum C, Section C.3.8, Container Management Practices, and that the permit meets the requirements of WAC 173-303-630(5).
Russell Jim	LERF/ETF	13. Include details in Addendum C, Pg.15, line 9 on how the 200 Area ETF floor provides secondary containment, and the 200 Area ETF roof and walls protects all containers from exposure to the elements in accordance with the WAC 173-303-630(7),(8),and (9)requirements.	Ecology believes that the information in Addendum C, Sections C.3.10 and C.3.4 provide adequate detail on how the floor provides secondary containment and the roof and walls provide protection from the elements, and that the detail provided satisfies the requirements of WAC 173-303-630(7), (8), and (9).
Russell Jim	LERF/ETF	14. Include details in Addendum C, Pg.15, line 14 on how the absorbents are added, as necessary in accordance with the WAC 173-303-160(4)(b)(i) thru (iv) requirements.	Ecology believes that the information in Addendum C on how absorbents are added meets the level of detail to satisfy the requirements of WAC 173-303-160(4) (b)(i) thru (iv).
Russell Jim	LERF/ETF	15. Include details in Addendum C, Pg.15, line 27 on how any reused or reconditioned container will comply with WAC 173-303-160 requirements.	Ecology believes that enough detail is provided in Addendum I, Container Inspection Information, to insure that reused or reconditioned containers satisfy the requirements of WAC 173-303-160.
Russell Jim	LERF/ETF	16. Include citation WAC 173-303-630 as a compliance requirement in Addendum C, Pg 15, line 31, Section C.3.2 Container Management Practices.	WAC 173-303-630 is referenced several times throughout Addendum C and the Unit Specific Permit Conditions, Ecology does not believe it is necessary to repeat this citation.
Russell Jim	LERF/ETF	17. Include citation WAC 173-303-630(9) as a compliance requirement in Addendum C, Pg 17, line 23, Section C.3.4.6: Prevention of Ignitable, Reactive, and Incompatible Wastes.	The citation to WAC 173-303-630(9) is called out in the Permit Conditions, Section III.3.O.2.d, which deals with storing incompatible wastes in separate containers. Ecology does not believe it is necessary to repeat the citation in Addendum C.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	18. Include details in Addendum C, Pg.13, Section C.2.5.2 Vessel Off gas System & Pg. 31, Section C.4.6 Air Emissions on how the following is dealt with and how this is in compliance with WAC 173-303-630(11) requirements [note: Section C.6 is very well written]: a. Degasification; on how purged carbon dioxide is vented to the vessel off gas system (including description of air filters). b. Thin Film Drying; on how noncondensible vapors and particulates from the spray condenser are exhausted to the vessel off gas system (including description of air filters).	The level of detail requested is not necessary. What is important is that the permit requires the permittee to meet the requirements of WAC 173-303-630(11).
Russell Jim	LERF/ETF	1. Addendum D monitored dangerous constituents and those monitored in Addendum H are, disconnected. Retain Arsenic, beryllium as constituents of concern in both Addenda.	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment. The constituents mentioned in the comment are included in both Addendum D and Attachment HA.
Russell Jim	LERF/ETF	2. Edit/revise Addendum D (e.g., D.3.9.6) to remove any reference to use of the Shewhart/CUSUM method and revise with Ecology approved statistical method. (see Appendix A-PNNL-14521-Communications with Ecology; A.1 letter from D. Goswami to M.J.Furman)	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment. Addendum D no longer references the Shewhart/CUSUM method.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	3. Edit Groundwater Permit conditions and Addendum D to ensure compliance with WAC 173-303-645. Addendum D: Pg 5, line 24 Section D.1 states "Inter-well statistical evaluation of LERF groundwater monitoring data has not been performed since 2001." Given that background or baseline values are used to determine whether a RCRA-regulated unit has adversely affected the groundwater quality in the uppermost aquifer beneath the site. And that this is accomplished by testing for statistically significant changes in concentrations of constituents of interest in a downgradient monitoring well relative to baseline levels. And that these baseline levels could be obtained from upgradient (or background) wells, and are referred to as interwell (or between-well) comparisons, it is unclear how required (WAC 173-303-645) statically significant evidence of contamination is obtainable.	After the issuance of the Rev9 (2012) Draft Renewal version of the LERF GWMP, revisions to the interpretations of past geophysical and borehole data resulted in updates to the geoframework model and the groundwater regime model, which combined had impacts to the geologic setting (basalt and permeable basalt) and groundwater regime/flow direction beneath LERF/ETF. These revised geologic/hydrogeologic model interpretations are different from geologic/hydrogeologic conditions presented in the Engineering Evaluation Report and prior versions of the GWMP, specifically the evaluation/selection of groundwater wells associated groundwater monitoring well network, which have been addressed but not in an updated version of the GWMP. Several revisions requested in your comments have been addressed since the 2012 Draft Renewal and are reflected in the current Revision 8C Permit as well as the Rev 9A Draft Revised Renewal Permit. Some of the revisions to the monitoring well network since the Rev9 (2012) Draft Renewal version of the LERF GWMP include: - wells being eliminated from the monitoring well network - replacement of wells which are, or will be, going dry - installation of additional monitoring wells to augment the existing wells The recent Hanford Site RCRA Groundwater Monitoring Report for 2023 (DOE-RL-2023-53_R0) depicts the current geologic framework and the current monitoring well network for LERF and supersedes the site information presented in the Rev9 (2012) Draft Renewal version of the LERF GWMP. It is anticipated that a revised LERF/ETF GWMP incorporating the various changes to the geoframework, the groundwater flow regime, and the monitoring well network will be prepared after issuance of the Rev9A Draft Revised Renewal Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	4. Edit Addendum D and include Permit condition(s) to ensure monitoring well maintenance, remediation, and abandonment will involve and be performed in accordance to the following: • Development of a well inspection plan involving inspection of wells at least once every 5 years; placement of inspection documentation in the Hanford Facility Operating Record). • Evaluation of wells in accordance with Sections 4.2 through 4.8.3 of Attachment 1 of the HF RCRA • Provision of written notice to Ecology at least 72 hours before the Permittees remediate (excluding maintenance activities) or abandon any well subject to the HF RCRA Permit. • Construction of wells pursuant to the HF RCRA Permit in compliance with WAC 173-160.	Ecology agrees that the items listed above are important but believes that they are already required by the permit. The requirement to maintain and repair all wells is contained in the Standard Conditions, Section I.E.4, which states "The Permittees will at all times properly operate and maintain all facilities and systems of treatment and control that are subject to requirements of this Permit and are installed or used by the Permittees." There is no need to duplicate this requirement in the unit specific permit conditions as such duplication tends to causes more confusion, can easily lead to inconsistencies in the permit, wastes valuable limited resources, and can make it harder to enforce the regulatory requirements.
Russell Jim	LERF/ETF	5. Addendum D: Edit LERF Groundwater Permit conditions and Addendum D to require re-drilling of well 299-E35-2 to depths sufficient for groundwater monitoring sampling requirements (i.e., yield representative samples of groundwater) and drill additional new upgradient and down-gradient wells (see SGW-41072, REV 0, 'The main potential weakness of the well configuration for monitoring would be for constituents to sink and transport below well 299-E26-10 because the well is not fully penetrating & Addendum D, Pg. 11, line 13 Section D.2.4). LERF Groundwater monitoring wells: Well 299-E26-11 [east of LERF] formerly identified as the 'upgradient well,' has been determined to be in a semi-confined aquifer and may not provide representative samples in comparison to the other wells in the monitoring system. It and well 299-E26-10 are projected to be unfit for sampling with the decline of the water table. Furthermore, as groundwater flow rates and directions is westerly when incorporating well 299-E26-11 water-level data and more southerly when data for well 299-E26-11are not incorporated (SGW-41072, REV 0), it has not been demonstrated how the current well monitoring system can be "deemed adequate" and in compliance with WAC 173-303-645(8)(a) without appropriate location of and depth of reliable upgradient and downgradient wells.	After the issuance of the Rev9 (2012) Draft Renewal version of the LERF GWMP, revisions to the interpretations of past geophysical and borehole data resulted in updates to the geoframework model and the groundwater regime model, which combined had impacts to the geologic setting (basalt and permeable basalt) and groundwater regime/flow direction beneath LERF/ETF. These revised geologic/hydrogeologic model interpretations are different from geologic/hydrogeologic conditions presented in the Engineering Evaluation Report and prior versions of the GWMP, specifically the evaluation/selection of groundwater wells associated groundwater monitoring well network, which have been addressed but not in an updated version of the GWMP. Revisions to the monitoring well network since the Rev9 (2012) Draft Renewal version of the LERF GWMP was issued to includes wells being eliminated from the monitoring well network and replacement of wells which are, or will be, going dry and installation of additional monitoring wells to augment the existing wells (all conditions which are addressed in your comments). The recent Hanford Site RCRA Groundwater Monitoring Report for 2023 (DOE-RL-2023-53_R0) depicts the current geologic framework and the current monitoring well network for LERF and supersedes the site information presented in the Rev9 LERF GWMP. It is anticipated that a revised LERF/ETF GWMP incorporating the various changes to the geoframework, the groundwater flow regime, and the monitoring well network will be prepared after issuance of the Rev9 Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	6. Edit Addendum D, as need, for clarity to include: • Calculation of the rate of unconfined aquifer decline at all groundwater monitoring wells at the LERF point of compliance • Establishment of the lateral continuity of the unconfined aquifer between groundwater monitoring wells at the LERF point of compliance • Establishment of the hydrogeologic and groundwater chemistry relationships between groundwater in the Hanford Formation and the uppermost portion of the Elephant Mountain Member (i.e., determine if these represent a single, laterally-continuous aquifer) • Hydrogeologic testing, well construction, monitoring, etc., as necessary, to achieve the stated objectives of the groundwater monitoring program. • Calculation and recording of a "leakage rate" for each basin quarterly (once per every three months). The "leakage rate" calculation will be based on totalizer readings, leachate pump rate, and sump level change. The "leakage rate" will be calculated and recorded in units of gallons/acre/day. • A description of procedures and protocol followed for quarterly (once per every three months) leachate quantity measurements and "leakage rate" calculations. The procedures and protocol followed will be maintained at the LERF Basin's unit. The description will include a description of equipment and methods for reading and/or calculating volumes. • Explanation of how records and results of leachate quantity measurements and "leakage rate" calculations will be maintained at the LERF Basin's unit.	After the issuance of the Rev9 (2012) Draft Renewal version of the LERF GWMP, revisions to the interpretations of past geophysical and borehole data resulted in updates to the geoframework model and the groundwater regime model, which combined had impacts to the geologic setting (basalt and permeable basalt) and groundwater regime/flow direction beneath LERF/ETF. These revised geologic/hydrogeologic model interpretations are different from geologic/hydrogeologic conditions presented in the Engineering Evaluation Report and prior versions of the GWMP, specifically the evaluation/selection of groundwater wells associated groundwater monitoring well network, which have been addressed but not in an updated version of the GWMP. Revisions to the monitoring well network since the Rev9 (2012) Draft Renewal version of the LERF GWMP was issued to includes wells being eliminated from the monitoring well network and replacement of wells which are, or will be, going dry and installation of additional monitoring wells to augment the existing wells (all conditions which are addressed in your comments). The recent Hanford Site RCRA Groundwater Monitoring Report for 2023 (DOE-RL-2023-53_R0) depicts the current geologic framework and the current monitoring well network for LERF and supersedes the site information presented in the Rev9 LERF GWMP. It is anticipated that a revised LERF/ETF GWMP incorporating the various changes to the geoframework, the groundwater flow regime, and the monitoring well network will be prepared after issuance of the Rev9 Permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	7. From the different geochemistry observed at the various LERF wells, it might be concluded that the wells are not interconnected. As such, Ecology should demonstrate how it was determined that the current groundwater monitoring network is sufficient to detect releases from LERF. Since this cannot be demonstrated and given the presence of nitrate and sulfates, and the lack of a monitoring well in the confined aquifer (in the basalt), vadose zone monitoring is justified (using omnibus authority WAC 173-303-815(2)(b)(ii)). Edit Addendum D to ensure satisfaction of performance standards of WAC 173-303-283 that prevent degradation of groundwater quality by to include a sampling and analysis(SAP) describing how the Permittee will evaluate, select, construct, and implement unsaturated monitoring beneath the LERF surface impoundments. This should include description of procedures, structures, or equipment used in the Unsaturated Monitoring Plan; the type(s), numbers, and location of instruments deployed; schedule for constructing or installing any new equipment; description of sampling and analysis; reporting schedules; description of procedures to be followed in the event of a detected release. Consideration should be given to the following alternative environmental monitoring technologies: o Neutron-Neutron: determination of moisture content, porosity (saturated), and identification of aquitards and lithology o Tensiometry/Suction Lysimetry: derivation of matric potential; water content, hydraulic conductivity; pore water samples o Resistivity Tomography: monitor changes in bulk density; o Crosshole Radar: moisture distribution, lithology, soil disturbances, buried materials o Seismic Tomography: porosity, mechanical rock properties, lithology; o Crosshole Electromagnetic Induction: moisture distribution, identification of shallow contaminant plumes, lithology through steel casing o High-Resolution Resistivity: moisture, lithology, geologic structure, buried materials, identification of shallow contaminant plumes o Time Domain Reflectrometry: monitoring flow and transport, and lithology	Vadose zone monitoring at LERF will not be required by Ecology at this time, however, the need for it at LERF, and elsewhere on the Hanford Site, will be evaluated as part of the sitewide vadose zone monitoring program. Ecology's groundwater and vadose zone monitoring staff will review the data and future reports on this matter to determine the need. The LERF basins have double liners with leachate collection underlain by a clay soil barrier layer. A very small amount of water wicks through the primary liner and is pumped out of the sump between the liners. Without a driving head on the secondary liner there is no reason to believe that any leachate is getting through this liner and there has never been any indication of a leak. Ecology will require that DOE continue to study the viability and adequacy of the groundwater monitoring network and the potential need for vadose zone monitoring at LERF as more data become available.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	8. Edit Addendum D, as need, to reference to D.3.11 when discussing data evaluations not D.3.13.	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment as a result of several Class 1 and 2 modifications to prepare the LERF and 200 Area ETF to receive DFLAW waste. The materials associated with these modifications were available for public comment. These references no longer exist in the current Draft Revision 9A Addendum.
Russell Jim	LERF/ETF	19. Edit Addendum F, to include compliance with WAC 173-303-340 requirements.	The citation to WAC 173-303-340 is called out in the Permit Conditions, Section III.3.F.1, Preparedness and Prevention. Ecology does not believe it is necessary to duplicate the citation in Addendum F.
Russell Jim	LERF/ETF	20. Edit Addendum F Pg. 6, line 29, Section F.2.1 to specifically cite [as appropriate given the event] WAC 173-303, -145, -350, -360, -610, -645 as the regulatory requirements for management of spills.	The citations cited are already called out in the permit conditions for LERF/ETF. Ecology does not believe it is necessary to duplicate the citation in Addendum F. Ecology and DOE have worked together in CAP Workshops and collaborative meetings to update documents so they are compliant with all applicable regulations. Ecology welcomes you to comment on the updated Rev 9a Sitewide Permit during the comment period.
Russell Jim	LERF/ETF	21. Edit Addendum F, Pg 8, line 37, Section F.3 to delete following text: Therefore, the requirements of WAC 173-303-806(4)(a) are not applicable. All RCRA permitted facilities are subject to WAC 173-303-806(4).	Ecology agrees that the line "the requirements of WAC 173-303-806(4)(a) are not applicable" should be deleted and that these requirements are applicable.
Russell Jim	LERF/ETF	22. Edit Addendum G Training Category Matrix Table, for consistency with Addendum H, to require training in Emergency Response for Sampling Personnel.	There is no regulatory requirement that samplers be trained in emergency response. In an emergency, samplers are trained to contact the appropriate emergency personnel.
Russell Jim	LERF/ETF	23. Edit Addendum H to include text as needed to provide details [e.g., name of TSD disposal unit] of the management of containers filled with waste as a result of various closure actions for these facilities.	Containers will be designated and shipped to an approved onsite or offsite TSD or disposal location at the time they are generated; however, this action is very far in the future and it does not make sense to specify the name of the location at this time and there is no benefit or regulatory requirement to do so.
Russell Jim	LERF/ETF	24. Edit Addendum H to include text as needed to ensure all “disposals” are in a RCRA compliant facility includes meeting LDR requirements of WAC 173-303-140.	Addendum H and Permit Conditions address the disposal of materials from LERF/ETF. All applicable requirements including WAC 173-303-140 are met.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	25. Edit Addendum H Pg. 6, line 40-41, Section H.2.3 Closure Standards for Underlying Soils (and elsewhere as needed) to include text that in addition to EPA/240/B-01/003 (EPA/QA R-5), EPA Requirements for Quality Assurance Project41 Plans, as amended, the sampling and analysis plan will be consistent with Ecology Publication #94-111, Guidance for Clean Closure of Dangerous Waste Units and Facilities as amended.	During workshops between the Permittees and Ecology text addressing closure was agreed to by all Parties. Closure Plan complies with all applicable laws.
Russell Jim	LERF/ETF	26. Edit Addendum H, Pg. 5, line 17 Section H.1 to delete “aqueous makeup” as included in uncontaminated equipment and structures, etc.	Ecology and DOE have worked together in CAP Workshops and collaborative meetings to update documents so they are compliant with all applicable regulations. Ecology welcomes you to comment on the updated Rev 9a Sitewide Permit during the comment period.
Russell Jim	LERF/ETF	27. Edit Addendum H, Pg. 6, line 3 to delete “practical”. All ancillary equipment must be flushed and drained. Provide details as to the disposal in a RCRA compliant facility. Edit line 12, to delete reference to partial closure.	Reject comment - The comment is not applicable anymore. The text referenced was deleted during revisions.
Russell Jim	LERF/ETF	28. Edit Addendum H, Pg. 6, line 22 Section H.2.3 to cite WAC 173-303-140 requirements.	The citation to WAC 173-303-140 is called out in several places in the Permit Conditions. Ecology does not believe it is necessary to duplicate the citation in Addendum H.
Russell Jim	LERF/ETF	29. Edit Addendum H, Pg. 6 lines 30-41 Section H.2.3 to include citation WAC 173-303-610(2)(b)(i), or background levels for Hanford soil if background is greater as the closure performance standard for soils/soil/bentonite mixture under ETF. Identify requirement of the Sampling and Analysis Plan to be consistent with Ecology Publication #09-05-007.	The citation to WAC 173-303-610(2)(b)(i) is already called out in Addendum H, Section H.2.3. Ecology does not see a need to cite Ecology publication 09-05-007 as the EPA guidance document, EPA/QA R-5, is more than adequate to satisfy the necessary requirements for a quality assurance plan.
Russell Jim	LERF/ETF	30. Edit Addendum H, Pg. 7 Section H.3.1 General Closure Activities to state closure will comply with WAC 173-303-640 and 173-303-650 requirements as well as 173-303-610.	WAC citations 173-303-640 and 173-303-650 are called out in several places in the Permit Conditions. Ecology does not believe it is necessary to duplicate the citation in Addendum H.
Russell Jim	LERF/ETF	31. Revise Addendum H, Pg. 8, lines 45-46-, Section H.3.4.2 [an elsewhere throughout the document as necessary] “Drainage Layer and Secondary Liner” Line 14: Include text to describe management of filled waste containers. Edit Addendum H to include text to describe management of containers filled with waste as a result of various closure actions for these facilities.	Management of containerized decontamination waste is described in Section H.6 of LERF/ETF Addendum H of the Revision 9A draft permit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	32. Revise Addendum H, Pg. 8, lines 45-46-, Section H.3.4.2 [an elsewhere throughout the document as necessary] “Drainage Layer and Secondary Liner” to also state the sampling and analysis plan will also be consistent with Ecology Publication #09-05-007.	Ecology worked collaboratively with USDOE and the contractors to develop a sampling and analysis plan that fulfills all WAC requirements. These requirements are the basis of Ecology Publication #09-05-007. Ecology does not think it is necessary to cite Ecology Publication #09-05-007 in Addendum H.
Russell Jim	LERF/ETF	33. Revise Addendum H, Pg. 9, lines 16-, Section H.3.4.3 [an elsewhere throughout the document as necessary] “Tanks” to also state tanks closures will comply with WAC 173-303-640(8) requirements. Define that all tanks not meeting clean debris performance standards will be macro-encapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].	WAC citation 173-303-640 is called out in several places in the Permit Conditions, and is specifically called out in Section III.3.P.2, Tank System Operating Requirements. Ecology does not believe it is necessary to duplicate the citation in Addendum H.
Russell Jim	LERF/ETF	34. Revise Addendum H, Pg. 10, lines 13-15, Section H.3.4.4 [an elsewhere throughout the document as necessary] “Internal and External Piping and Ancillary Equipment” to state: If it is not possible to meet the clean debris surface standard or the piping or ancillary equipment cannot be inspected, those portions of the piping and ancillary equipment will be removed, designated, and disposed of according to WAC 173-303-640(8) and 173-303-650 requirements. Delete text, lines 16-19: It is inconsistent with WAC 173-303 Dangerous Waste regulations to require compliance with closure consistent with the 200-IS-1 operable unit decisions; these decisions remain outstanding.	WAC citations 173-303-640(8) and 173-303-650 are either already called out specifically in the Permit Conditions or are referenced in the Permit Conditions and in Addendum H. Ecology does not believe it is necessary to duplicate the citation in the permit. Text referencing 200-IS-1 has been removed from the LERF/ETF portion of the permit.
Russell Jim	LERF/ETF	35. Revise Addendum H, Pg. 11, lines 2-18 Section H.3.4.7 [an elsewhere throughout the document as necessary] “Structures” to state closure steps will include but not be limited to the following activities in accordance to WAC 173-303-610(2)(b)(ii) requirements:	Requirements of WAC 173-303-610(2)(b)(ii) are addressed in Section H.5.5 Decontaminating Structures.
Russell Jim	LERF/ETF	36. Revise Addendum H, Pg. 11, Section H.3.4.7 [an elsewhere throughout the document as necessary] “Underlying Soils” to require soil sampling under LERF’s secondary liner in accordance with WAC 173-303-650(6) and 173-303-610(2)(b)(i) requirements.	WAC 173-303-650(6) is addressed in Section H.9. WAC 173-303-610(2)(b)(i) requirements are addressed in several locations in Addendum H including H.7, H.9, and H.10.1.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	37. Revise Addendum H, Pg. 11, lines 26-37 Section H.3.4.7 [an elsewhere throughout the document as necessary] “Underlying Soils” to require sampling of the concrete floors and bermed areas in accordance with WAC 173-303-640(8) requirements.	Soils beneath a tank and a primary and a secondary liner will not be sampled unless there is some reason to believe that the soils may have been contaminated. This procedure for determining if the soils may have become contaminated is described in the lines you cite of the permit. Ecology does not see the need to require soil sampling beneath a tank if there is not reason to believe the soils may have become contaminated.
Russell Jim	LERF/ETF	38. Revise Addendum H, Pg. 11, lines 38-40 Section H.3.4.7 [an elsewhere throughout the document as necessary] “Underlying Soils” to require sampling of the soil areas underneath external piping (transfer lines) between the 242-A Evaporator and LERF and 200 Area ETF in accordance with WAC 173-303-640(8) requirements.	As described in the lines cited, soils beneath the transfer lines will not be sampled unless there is reason to believe that the soils may have been contaminated or if there is visible evidence of leakage during excavation. Ecology does not see the need to require soil sampling beneath a transfer lines if there is not reason to believe the soils may have become contaminated or if there is no evidence of leakage.
Russell Jim	LERF/ETF	39. Revise Addendum H, Pg. 12, line 4, Section H.5.1 [an elsewhere throughout the document as necessary] Closure of Containers to require Closure in accordance with WAC 173-303-610 & 173-303-630 requirements.	The applicable sections of WAC citations 173-303-610 and 173-303-630 are cited in the Permit Conditions. Ecology does not believe it is necessary or a good practice to have duplicative citations by including it in Addendum H.
Russell Jim	LERF/ETF	40. Revise Addendum H, Pg. 12, line 12, Section H.5.2 [an elsewhere throughout the document as necessary] Closure of Tanks to require Closure in accordance with WAC 173-303-610 & 173-303-640 requirements.	The applicable sections of WAC citations 173-303-610 and 173-303-640 are cited in the Permit Conditions. Ecology does not believe it is necessary or a good practice to have duplicative citations by including it in Addendum H.
Russell Jim	LERF/ETF	41. Revise Addendum H, Pg. 12, line 18, Section H.5.3 [an elsewhere throughout the document as necessary] Closure of Surface Impoundments to require Closure in accordance with WAC 173-303-610 & 173-303-650(6)(a) and (6)(b)requirements.	The WAC 173-303-610 Closure and Post Closure regulations specifically require compliance with WAC 173-303-640(8) and WAC 173-303-650(6). It is a roundabout way of citing these sections, but they are already required by the permit and there is no need to duplicate the citation.
Russell Jim	LERF/ETF	42. Edit appropriate Sections of Addendum I, to ensure compliance with WAC 173-303-320, -630(6), -640(6), and 650(4) requirements.	Ecology agrees that these citations are applicable to LERF/ETF, however, they are already cited in the LERF/ETF permit conditions or Addendum I, Inspection Plan. Ecology does not believe it is necessary or a good practice to have duplicative citations by including it in Addendum I.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	43. Edit Addendum I, Pg. 8, line 5, Section I.1.3 to ensure compliance with WAC 173-303-320(2)(d) requirements with regards to identification of the date and nature of any repairs or remedial actions taken throughout the facilities(LERF & ETF) to be included in the inspection log(s). Edit subsections as needed to also reflect this compliance.	WAC 173-303-320 is cited in its entirety in the LERF/ETF permit conditions (See Condition III.3.H.1) and Addendum I.
Russell Jim	LERF/ETF	44. Edit Addendum I to include an Attachment with example of the checklist used by the qualified inspector [reference; Pg 8, line 24, Section I.1.4]	This addendum has been revised to include language that was agreed upon between the Permittees and Ecology in unit group workshops and during the Conceptual Agreement Process.
Russell Jim	LERF/ETF	45. Clarify operating levels stated in Addendum I, Pg 7, line 2; other descriptions have indicated 29.5 million as limit.	The capacity of the LERF basins in Addendum I, Section I.5.4.1 Overtopping Control was removed during permit revisions. To see accurate volume levels, see Addendum A, Part A Form.
Russell Jim	LERF/ETF	46. Delete following text in Addendum I, Pg. 7, line 22: The WAC 173-303-650 regulations do not require a discussion of piping for surface impoundments. WAC 173-303-650(2)(c) indicates the need to address ancillary equipment which includes piping. Note; It is appropriate to require comprehensive coverage and integrity assessments on piping.	The LERF and 200 Area ETF portion of the Permit has been heavily revised in the time since this comment. The referenced text has been removed. Addendum I requires inspections of piping.
Russell Jim	LERF/ETF	47. Edit for clarity, Addendum J to ensure compliance with WAC 173-303-340(3) is maintained and consistency with Addendum F.	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda J, Contingency Plans. Ecology incorporated these into Revision 8C of the permit on June 24, 2020 in permit modification 8C.2020.5F. Ecology edited Addendum J, Contingency since 8C.2020.5F. See those edits in the new Addendum J, Contingency Plan in this draft permit. Along with the Addenda, Ecology, USDOE, and the contractors developed the site-wide Hanford Emergency Management Plan, Attachment 4, DOE/RL-94-02, which was incorporated into the permit in July of 2020. The unit-specific Addenda J, Contingency Plans and Attachment 4 fulfill all WAC contingency plan requirements. Attachment B of the Addenda J, Contingency Plans describe where in the permit each WAC requirement is met. Table J.1 has been revised for clarity and the blank footnotes have been removed. Workshops with the permittees and a Conceptual Agreement Process ensured that requirements of WAC 173-303-340(3) were met and consistency was maintained with Addendum F, "Preparedness and Prevention"

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	48. Revise Addendum J, Pg. 5, Table J.1 to include all cited sections of Permit Attachment 4, Hanford Emergency Management Plan (DOE/RL-94-02) referenced within the Addendum (e.g., Section 5.1 of Permit Attachment 4 is identified on Pg. 11,line 7, Section J.3.4 as a requirement but unlisted in Table J.1). Provide explanations for 'blank footnotes' In Table J.1.	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda J, Contingency Plans. Ecology incorporated these into Revision 8C of the permit on June 24, 2020 in permit modification 8C.2020.5F. Ecology edited Addendum J, Contingency since 8C.2020.5F. See those edits in the new Addendum J, Contingency Plan in this draft permit. Along with the Addenda, Ecology, USDOE, and the contractors developed the site-wide Hanford Emergency Management Plan, Attachment 4, DOE/RL-94-02, which was incorporated into the permit in July of 2020. The unit-specific Addenda J, Contingency Plans and Attachment 4 fulfill all WAC contingency plan requirements. Attachment B of the Addenda J, Contingency Plans describe where in the permit each WAC requirement is met. Table J.1 has been revised for clarity and the blank footnotes have been removed.
Russell Jim	LERF/ETF	49. Revise Addendum J, Pg. 10, line 31, Section J.3.2.5.1 to provide explanation of waiver of WAC 173-303-350(3)(b) requirements.	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda J, Contingency Plans. Ecology incorporated these into Revision 8C of the permit on June 24, 2020 in permit modification 8C.2020.5F. Ecology edited Addendum J, Contingency since 8C.2020.5F. See those edits in the new Addendum J, Contingency Plan in this draft permit. The referenced section in Addendum J explains how damaged or unacceptable shipments received from offsite will be handled so WAC 173-303-370 applies and is sufficiently addressed in the referenced section. The WAC 173-303-350 applies to emergency events resulting in the release of dangerous waste by a facility, not upon receipt of a shipment so it does not apply to this section.
Russell Jim	LERF/ETF	50. Edit Addendum J, Pg. 11, line 5, Section J.3.4 to require written recovery plan to be developed as an Attachment to Addendum J (i.e., prior to). Suggest use of WAC 173-303-815 omnibus authority as support to ensure compliance with WAC 173-303-360(2)(f) thru (i) and (k)(ix).	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda J, Contingency Plans. Ecology incorporated these into Revision 8C of the permit on June 24, 2020 in permit modification 8C.2020.5F. Ecology edited Addendum J, Contingency since 8C.2020.5F. See those edits in the new Addendum J, Contingency Plan in this draft permit. Along with the Addenda, Ecology, USDOE, and the contractors developed the site-wide Hanford Emergency Management Plan, Attachment 4, DOE/RL-94-02, which was incorporated into the permit in July of 2020. The unit-specific Addenda J, Contingency Plans and Attachment 4 fulfill all WAC contingency plan requirements. Attachment B of the Addenda J, Contingency Plans describe where in the permit each WAC requirement is met.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LERF/ETF	51. Revise Addendum J, Pg. 14, line 17, Section J.6 to include required compliance with WAC 173-303-350(5) in addition to Permit Attachment 4.	Ecology worked collaboratively with USDOE and the contractors to develop unit-specific Addenda J, Contingency Plans. Ecology incorporated these into Revision 8C of the permit on June 24, 2020 in permit modification 8C.2020.5F. Ecology edited Addendum J, Contingency since 8C.2020.5F. See those edits in the new Addendum J, Contingency Plan in this draft permit. Along with the Addenda, Ecology, USDOE, and the contractors developed the site-wide Hanford Emergency Management Plan, Attachment 4, DOE/RL-94-02, which was incorporated into the permit in July of 2020. The unit-specific Addenda J, Contingency Plans and Attachment 4 fulfill all WAC contingency plan requirements. Attachment B of the Addenda J, Contingency Plans describe where in the permit each WAC requirement is met.
Russell Jim	General	1. Project description indicates actions in violation of WAC 173-303 Dangerous Waste regulations for in-trench treatment and placement of liquids in a landfill in violations of Land Disposal Restrictions (LDRs).	Ecology ensured compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-140 (land disposal restrictions (LDR)), as applicable, for all closing unit groups.
Russell Jim	General	2. MDNS for this TSD unit emphasizes the need for the over-all SEPA determination to be at least a MDNF rather than a DNS.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.
Russell Jim	LLBG Trenches 31/34/94	1. Revise/delete text supporting 'in-trench treatment or placement of liquids within landfill'. This text is not in compliance with WAC 173-303-140(4)-Dangerous Waste regulations.	In-trench treatment is not authorized for LLBG trenches 31 & 34. All waste received for disposal is LDR compliant.
Russell Jim	LLBG Trenches 31/34/94	2. Revise/delete text in Permit conditions supporting placement of [storing] containers next to trenches. This text is not in compliance with WAC 173-303-140(4)-Dangerous Waste regulations. WAC 173-303-630 regulations would apply. Permit would to allow a non-compliant RCRA design in-lieu of building a compliant storage facility.	The adjacent storage pads have been identified in the permit as RCRA dangerous waste management units subject to the storage requirements of the dangerous waste regulations.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	3. Revise Groundwater monitoring section to state a groundwater monitoring plan will be in compliance with WAC 173-303-645 and -610.	A compliant (WAC 173-303-645) groundwater monitoring plan have been included within the permit for Trenches 31 and 34. Trench 94 has a groundwater monitoring exemption.
Russell Jim	LLBG Trenches 31/34/94	4. Groundwater section has text describing submittal of a workplan for characterization which are not included in the Permit conditions.	The compliance schedule in the GW section will not be necessary, a compliant GW monitoring plan (Addendum D) will be included within the permit. The permit conditions will be deleted
Russell Jim	LLBG Trenches 31/34/94	1. Revise the Part A form to include all trenches as subject to Dangerous Waste Regulations until such time that characterization (including actively digging up waste to be able to conduct sampling) demonstrates it is not RCRA waste. With the first submittal of the Part A for interim status in 1985, the U. S. Department of Energy (DOE) declared the process codes and capacities, dangerous waste codes, and unit boundaries for the Low Level Burial Grounds (LLBG). As a RCRA Treatment, Storage, and Disposal (TSD) facility, hazardous waste became regulated under Washington's Hazardous Waste Management Act, Chapter 70.105 of the Regulatory Code of Washington (RCW). RCW 70.105.109 provides that: "The Department of Ecology may regulate all hazardous wastes, including those composed of both radioactive and hazardous components, to the extent it is not preempted by federal law." The waiver of sovereign immunity, 42 U.S. Code (U.S.C.) paragraph 6961(a) states in pertinent part as follows: "Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any solid waste management facility or disposal site, or (2) engaged in any activity resulting, or which may result, in the disposal or management of solid waste or hazardous waste shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting control and abatement of solid waste or hazardous waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges... The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement	The burial grounds have been subdivided into 2 operating units (Trenches 31/34 and Trench 94) and 1 closure unit (Green Islands). The closure unit includes those trenches that have been identified as the "green islands". The green islands will be closed in conjunction with the 200-SW-2 operable unit. New Part A's have been submitted.

Commenter	Unit Group	Comment	Comment Response
		(including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to the in the preceding sentence, or reasonable service charge)." The wording of the waiver located at 42 U.S.C. paragraph 6961 was amended, of course, in the Federal Facilities Compliance Act of 1992. However, the operative language of the waiver -- " [e)ach department. ..of the Federal Government... shall be subject to, and comply with, all ... State requirements" - has been in the statute since 1978. At issues are whether or not any new information gathered (without actual characterization) will substantiate the claims of non-use, and the closure of a sub-portion (i.e. the 'unused trenches') of a subunit (i.e. the LLMW Burial Grounds TSD) independent and to different closure standards of the rest of the facility (i.e. the entire Hanford Facility under the RCRA permit).	
Russell Jim	LLBG Trenches 31/34/94	2. Remove all references to acceptance of Off-site Waste at LLBG Trenches 31 & 34. (e.g., Section J.3.2.5.1 Delete statement In some cases, the conformance issue will result from receiving an off-site shipment, manifested pursuant to Permit, Condition II.N.2 or WAC 173-303-370 that is damaged or otherwise presents a hazard and cannot be transported.) Off-site wastes should not be permitted to be buried on the Hanford site until a cumulative Risk Assessment indicates there will be no exceedances of groundwater cleanup standards. Include a Permit condition indicating as such.	The need for the Bodman Agreement prohibiting receipt of off-site waste at Hanford was terminated when the Tank Waste EIS was issued. Hanford can accept off-site waste provided that waste meets the criteria in HNF-EP-0063 (most current revision) are met.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	3. Edit the Definition Section of the Permit to state that all references to offsite waste in the permit are limited specifically to those defined in the Definition Section.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9 permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9A to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013."

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	4. Edit to include permit condition(s) requiring use of the observational approach rather than the analogous site approach form of characterization. • There are multiple burial grounds where there is no knowledge of inventory, and others where the information is very limited. The amount of current and planned characterization should be discussed along with consideration of the condition of the material in the trenches and with considerations for treatment. • Process records are reasonably good; it is possible to create disposal volume estimates; however the chemical constituent information is not as reliable because the contaminants of concern were not tracked. • DOE has said there needs to be an investigation to address whether there is any liquid waste in the solid waste burial grounds and where it might be found. Include a permit condition to require this to be done. • In the past, there have been issues with completeness of the burial ground inventory, including inputs from laboratory chemistry and off-site waste. • Washington State regulations require enough characterization to know what is in the trenches and the extent and nature of current contamination in the soil column. These requirements cannot be met with surface studies and review of the inadequate historical records.	The work plan developed as part of the 200-SW-2 Operable Unit will address characterization of the burial grounds.
Russell Jim	LLBG Trenches 31/34/94	5. Edit to include permit condition(s) requiring surface geophysical and radiological surveys to help delineate the trenches, partial exhumation of the trenches to allow evaluation of the risk of the waste on a container by container basis, and selective removal of high-risk items, and allowing low to no risk items to remain.	This is not applicable to Trenches 31 & 34. However the trenches identified in the 200-SW-2 operable unit will be characterized based on the RCRA Facility Investigation/Corrective Measure Study(RFI/CMS) & Remedial Investigation/Feasibility Study Work Plan for the 200-SW-2 Operable Unit
Russell Jim	LLBG Trenches 31/34/94	6. Include permit condition(s) for the management/treatment of any retrievably stored waste. The storage requirements at 40 CFR 268.50, incorporated by reference by WAC 173-303-140, prohibit storage in lieu of treatment.	All waste received for disposal in Trenches 31 & 34 is LDR compliant
Russell Jim	LLBG Trenches 31/34/94	7. Revise/delete text in the Permit conditions supporting 'in-trench treatment or placement of liquids within landfill'. This text is not in compliance with WAC 173-303-665-Dangerous Waste regulations.	LLBG Trenches 31 & 34 will only be authorized to store and dispose of LDR compliant waste. LLBG Trenches 31 & 34 are not authorized to perform in-trench treatment.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	8. Revise/delete text in Permit conditions supporting placement of [storing] containers next to trenches. This text is not in compliance with WAC 173-303-140(4)-Dangerous Waste regulations. WAC 173-303-630 regulations would apply. Permit would to allow a non-compliant RCRA design in-lieu of building a compliant storage facility [e.g. CWC]. Include a permit condition requiring construction of a Container Storage area compliant with WAC 173-303-630.	The adjacent storage pads have been identified in the permit as RCRA dangerous waste management units subject to the storage requirements of the dangerous waste regulations.
Russell Jim	LLBG Trenches 31/34/94	9. Include a permit condition requiring a modification per WAC 173-3036-830 to the waste acceptance criteria for these trenches (and require this permit condition in all LLBG units) prior to acceptance of waste constituents not listed in the waste acceptance criteria.	The Process Information Addenda for all SWOC units, including Trenches 31/34/94, require a permit modification to add waste constituents not previously listed. Therefore, a permit condition is not required.
Russell Jim	LLBG Trenches 31/34/94	10. Include permit conditions requiring modifications to the waste acceptance criteria for specific waste streams or mitigation measures to subject to WAC 173-303-830 process.	The Process Information Addendum for Trenches 31/34/94 include requirements for annual review of waste streams.
Russell Jim	LLBG Trenches 31/34/94	11. Include permit condition(s) requiring the Waste Analysis Plan & Sampling and Analysis Plan and criteria for waste acceptance at the LLBG be informed by the results of the Risk Budget Tool. Require impacts from nearby waste sites/ trenches to bound cumulative impacts to groundwater in the model used in the Risk Budget Tool.	The WAP ensures that all waste meets LDR. The groundwater monitoring plan for Trenches 31/34 addresses all waste constituents that have been disposed of as part of monitoring activities. This ensures that all waste is being properly managed and monitored. Trench 94 has a groundwater monitoring exemption. However, as part of the AEC monitoring, lead is monitored in a downgradient well.
Russell Jim	LLBG Trenches 31/34/94	12. Include permit conditions) requiring the most current revision of HNF-EDC-05-27427, Sampling and Analysis Plan (SAP) for Trenches 31 and 34 of the 218-W-5 Burial Ground, 9/2005 as an attachment to the Groundwater Monitoring Addendum D and ensure it complies with WAC 173-303 requirements for sampling and analysis plan. Include a permit condition for statistically based sampling design and unfiltered sampling for SAPs.	The revised GWMP for LLBG Trenches 31 and 34 cites the most recent SAP and groundwater monitoring requirements.
Russell Jim	LLBG Trenches 31/34/94	13. Edit to include permit condition(s) requiring vadose zone monitoring. The SWBGs have the potential to release high levels of soil gases and chemicals. Vadose zone monitoring can be used to detect such releases before they reach groundwater.	Vadose zone monitoring is not a RCRA permitted activity. However, vadose monitoring is addressed under other programs at Hanford.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	14. Include/revise a Permit condition(s) requiring monitoring of the entire 40 miles of unlined trenches. The monitoring system should include contaminants of concern associated with nearby operable units and the associated groundwater unit(s).	The burial grounds have been subdivided into 2 operating units (Trenches 31/34 and Trench 94) and 1 closure unit (Green Islands). The closure unit includes those trenches that have been identified as the "green islands". The green islands will be closed in conjunction with the 200-SW-2 operable unit. Groundwater monitoring is occurring for Trenches 31/34 as well as the waste management units containing Green Islands.
Russell Jim	LLBG Trenches 31/34/94	15. Include permit condition(s) requiring on-going groundwater well evaluation and deepening of wells as the groundwater level drops. More information on the sub-surface geology is needed as the monitoring wells are no longer valid because there is no groundwater for some of these wells.	Groundwater monitoring is occurring for Trenches 31/34 as well as the waste management units containing Green Islands. Groundwater Monitoring Plans address well replacement as needed.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	16. Edit/include a Permit condition(s) to require a groundwater monitoring plan in compliance with WAC 173-303-645,-610, -600, and -665. Include a permit condition(s) requiring the identification of the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Identify dangerous constituents (including lead and mercury), concentration limits, point of compliance, compliance period (at a minimum, it should be specified to be the entire time the permit is in effect – 10 years), and other general groundwater monitoring requirements. • Ecology letter to DOE dated July 9, 2012 clearly indicates there are changes needed to the SAP. At a minimum, the SAP should be revised to incorporate these changes. • The claim that there is no reason to believe that there are releases affecting groundwater is at odds with the minimal monitoring data. In the 200-West Area, LLBGs 218-W-4C, 218-W-4B, 218-W-4A, 218-W-11, 218-W-1, and 218-W-2 form an elongated cluster oriented in a north-south direction. Two wells located approximately down gradient of 218-W-4B and the northern extreme of 218W-4C had high total organic carbon and elevated total organic halide readings in February 2008 and August 2008 (wells are checked biannually). These elevated readings were reanalyzed, confirmed, and a groundwater quality assessment plan was written and submitted to the Washington State Department of Ecology (Ecology). • Statement in Addendum D, Section 2.5: No new wells are currently planned for LLWMA-3 until the impact of the expanded 200-ZP-1 Groundwater Operable Unit (OU) pump-and-treat system is known. This is in conflict with other Addenda and the TPA schedule (needed new RCRA well installation was indicated for FY 2015).	LLBG WMA Groundwater Monitoring Plans address: - Changes to monitoring constituents - Changes in groundwater flow regime - The need for additional changes to the monitoring plan - Evaluation of exceedances and changes in groundwater monitoring results - Well replacement as needed - Any additional wells needed
Russell Jim	LLBG Trenches 31/34/94	17. Ecology is making presumptive decisions. Additional information and reference to 200-SW-2 OU document included in permit but these documents are not finalized. Permit is based on results of as of yet finalized document(s). Workplan for 200-SW-2 OU is not due for submittal to Ecology until sometime in 2014.	The burial grounds have been subdivided into 2 operating units (Trenches 31/34 and Trench 94) and 1 closure unit (Green Islands). The closure unit includes those trenches that have been identified as the "green islands". The green islands will be closed in conjunction with the 200-SW-2 operable unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	18. Intended Life is not defined; provide estimated operational life and post-closure in years. Provide data from modeling to ensure reasonable post-closure monitoring requirements can be met. Addendum C.1 states the planned operational of Trenches 31 &34 is 20 years. These trenches are beyond their Intended Life as stated in Section C.2.4 and should be undergoing closure.	Addendum H, "Closure Plan" includes language on the requirements for submittal of final cover plan(s) for Trenches 31 and 34. Milestone M-037-30 requires a permit modification request to be submitted to Ecology by September 30, 2033, which will include the following: • 90% final landfill cover design • Engineering report • Maintenance and monitoring plan • Proposed schedule of these closure activities for the LLBG Trenches 31 and 34. Within 180 days of Ecology's approval of the 90% cover design, a permit modification request will be submitted to Ecology to provide an updated post-closure plan for Trenches 31 and 34. The definitive design will include the preparation of a construction quality assurance plan, which will also be submitted to Ecology as a permit modification request.
Russell Jim	LLBG Trenches 31/34/94	19. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued. Addendum J states a contingency plan was written for this permit already.	As part of the Part B submittal in 2016, DOE provided the necessary permit application information. Ecology and the Permittees revised these documents as part of the Rev 9a Renewal
Russell Jim	LLBG Trenches 31/34/94	20. Edit Permit to include conditions addressing discovery of any anomalies and regulatory path forward under WAC 173-303.	Trenches 31 & 34 are disposal unit only. Anomalies identified prior to disposal will be sent back to generator.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	21. Landfill Cap: Final Engineering Design is a WAC 173-303-610 and -665. This should have been submitted with the Part B Application and included in the permit.	Addendum H, "Closure Plan" includes language on the requirements for submittal of final cover plan(s) for Trenches 31 and 34. Milestone M-037-30 requires a permit modification request to be submitted to Ecology by September 30, 2033, which will include the following: • 90% final landfill cover design • Engineering report • Maintenance and monitoring plan • Proposed schedule of these closure activities for the LLBG Trenches 31 and 34. Within 180 days of Ecology's approval of the 90% cover design, a permit modification request will be submitted to Ecology to provide an updated post-closure plan for Trenches 31 and 34. The definitive design will include the preparation of a construction quality assurance plan, which will also be submitted to Ecology as a permit modification request.
Russell Jim	LLBG Trenches 31/34/94	General: Reader has difficulty in identifying the waste acceptance criterion. Required elements are difficult to track. Edit sections to clearly identify what are the major criteria (e.g., compliance with LDRs; no free liquids; what number of chemical and physical screening anticipated for each separate waste stream and how single container waste steams will be dealt with, etc.). Include text to reflect new permit conditions for modifications to the waste acceptance criteria for specific waste streams or mitigation measures. Include all modifications to the waste acceptance criteria is subject to WAC 173-303-830 process.	Addendum B (Waste Analysis Plan) was revised to address waste acceptance criteria. Free liquids are not allowed within the mixed waste trenches. All waste sent to the mixed waste trenches meets LDR requirements.
Russell Jim	LLBG Trenches 31/34/94	1. Revise/delete text supporting storage of wastes awaiting final disposal. LDRs prohibit storage and placement of wastes in landfills without meeting treatment standards or for the purpose of 'storage'.	The storage pads at the top of the mixed waste trenches are permitted for storage. The requirements for storage at the pads are included in Addendum C (Process Information). Storage is allowed prior to final placement within the trenches.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	2. Edit to include statement that no off-site wastes will be accepted or placed in Trenches 31 & 34.	Ecology and USDOE discussed the issue of importation of Off-site Waste at Hanford in Hanford Site-wide Permit management meetings. The issue was elevated through a set of issue resolution meetings and it was decided upon by members of Ecology and USDOE meeting. The following is the final decision and path forward for addressing this issue: Ecology and USDOE mutually agreed to move forward with a decision on the off-site waste. Ecology will remove the definition of off-site waste from the Hanford Site-wide Rev 9 permit renewal as requested by USDOE in their position paper. Ecology will proceed with including unit specific conditions as described in their position paper for CWC, 325 HWTU, T-Plant, IDF or LLBG in the Hanford Site-wide Rev 9A permit renewal. USDOE is reserving their right to submit public comment on the draft permit conditions and their right to appeal any final permit conditions. The State of Washington drafted unit-specific permit conditions for the following Unit Groups in the Hanford Site-wide Permit, Revision 9 to address the receipt of off-site waste: Integrated Disposal Facility, 325 HWTU, Trenches 31/34, CWC and T Plant. These draft unit-specific permit conditions address the agreement between USDOE and Ecology on the importation of off-site waste and is consistent with the Record of Decision that USDOE issued on December 13, 2013.
Russell Jim	LLBG Trenches 31/34/94	3. Revise/delete text supporting storage of [or staging of] containers next to trenches on storage pads. Develop appropriate requirements for a WAC 173-303-630 compliant Container Storage area.	The storage pads at the top of the mixed waste trenches are permitted for storage. The requirements for storage at the pads are included in Addendum C (Process Information). Storage is allowed prior to final placement within the trenches.
Russell Jim	LLBG Trenches 31/34/94	4. Include a permit condition requiring submittal of a corrective action plan (CAP) that clearly states the reason for the conformance issues resulting in a waste container not meeting the LLBG Trenches 31 & 34 waste acceptance criteria and describes the actions required to prevent the recurrence and corrective actions to be taken.	Addendum B (Waste Analysis Plan) for CWC and T Plant address deficiencies and how they are handled. Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensure only compliant containers are sent to the trenches for disposal.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	5. Include a permit condition requiring waste analysis contained in documented studies on the generator's waste is based on representative and appropriate sampling and testing methods per WAC 173-303-110. Edit Section B.2.1 to include evaluation of such sampling data as part of the pre-shipment review. Edit Section B.2.1.3 to include this as needed to confirm the sufficiency and reliability of the "knowledge" used for the waste profile.	Addendum B (Waste Analysis Plan) for CWC and T Plant address use of knowledge as part of characterization and designation of waste streams. It also addresses the need for sampling and when that sampling must occur. These controls are put in place to ensure the waste meets all LDR and other applicable criteria before being sent for disposal. No waste is sent to Trenches 31/34 & Trench 94 without meeting LDR.
Russell Jim	LLBG Trenches 31/34/94	6. Include permit condition treatment to meet LDR standards as part of the 'pre-shipment review process.	Addendum B (Waste Analysis Plan) for CWC and T Plant address the requirements for meeting LDR. Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensure only LDR compliant containers are sent to the trenches for disposal.
Russell Jim	LLBG Trenches 31/34/94	7. Include position name and training requirements for the "witness qualified to determine that waste meets LLBG Trenches 31 & 4 waste acceptance criteria" [Section B.2.2.2.2].	Addendum G (Personnel Training) includes all training requirements for personnel performing work within the Solid Waste Operation Complex. It also contains a description of the positions performing that work, including the person certifying LDR.
Russell Jim	LLBG Trenches 31/34/94	8. Include permit condition requiring compliance with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Addendum B (Waste Analysis Plan) addresses requirements in Ecology Publication 09-05-007.
Russell Jim	LLBG Trenches 31/34/94	1. Delete from Section B.1.1.1: Management of the waste containers and other forms at or near the mixed waste trenches will not constitute land disposal (per the definition of that term in WAC 173-303-140(3) (b) until the contractor completes treatment and verification that satisfies the land disposal restriction treatment regulations. This is not authorized by the Dangerous Waste regulations for Landfills or Containers. This explanation is a deviation of the definition of "Land disposal" [WAC 173-303-140(3) (b)]. "Management of waste containers and other forms" as described is not in compliance with LDRs.	Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensures no waste is accepted for disposal unless it meets LDR.
Russell Jim	LLBG Trenches 31/34/94	2. Edit Section B.1.1.1 text: When waste is received for disposal in LLBG Trenches 31 & 34, waste receipts will be checked for waste compatibility with the liner, to ensure that the waste meets the liner waste acceptance criteria. Tests will be done in accordance with EPA Method 9090A to include sentence: A waste constituent not listed in the waste acceptance criteria will not be accepted into the LLBG Trenches 31 & 34 until a permit modification per WAC 173-303-830/840 has been approved.	Addendum B (Waste Analysis Plan) for CWC and T Plant address liner compatibility when waste is destined for disposal in Trenches 31/34. US Navy waste acceptance criteria are addressed for all packages destined for disposal in Trench 94 as part of the Navy's waste package preparation requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	3. Edit Section B.1.1.1: Include requirements for compliance with WAC 173-303-140(4)(b)(iii) for containers and bulk wastes. Include requirements for compliance with WAC 173-303-180.	All waste disposed in the LLBG Trenches 31 & 34 is LDR compliant. The adjacent storage pads have been identified in the permit as RCRA dangerous waste management units subject to the container storage requirements of the dangerous waste regulations.
Russell Jim	LLBG Trenches 31/34/94	4. Edit Section B.1.1.1.1: Wastes may not be stored or staged or placed in the LLBG without meeting LDR treatment standards and WAC 173-303-630 requirements.	Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensures no waste is accepted for disposal unless it meets LDR.
Russell Jim	LLBG Trenches 31/34/94	5. Edit Section B.1.1.1.2.1: Identify the “associated waste storage units” and ensure they are in compliance with WAC 173-303-630 requirements. Qualify that waste not previously accepted at SWOC TSD units must comply with LDRs, WAC 170-303-200, WAC 173-303-300, WAC 173-303-630 requirements.	Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensures no waste is accepted for disposal unless it meets LDR.
Russell Jim	LLBG Trenches 31/34/94	6. Edit Section B.1.1.1.2.2: Include requirement of compliance with WAC 173-303-300(2)(a)(i thru iv) to confirm the sufficiency and reliability of the “knowledge.”	Addendum B (Waste Analysis Plan) for CWC and T Plant address use of knowledge as part of characterization and designation of waste streams. They also address the need for sampling and when that sampling must occur. These controls are put in place to ensure the waste meets all LDR and other applicable criteria before being sent for disposal. No waste is sent to Trenches 31/34 & Trench 94 without meeting LDR.
Russell Jim	LLBG Trenches 31/34/94	7. Edit Section B.1.1.1.2.3: Include the responsible person who does review physical screening frequency, determines corrective actions, or resolves waste acceptance issue for WRP.	Addendum G (Personnel Training) includes all training requirements for personnel performing work within the Solid Waste Operation Complex. It also contains a description of the positions performing that work.
Russell Jim	LLBG Trenches 31/34/94	8. Edit Section B.1.1.1.2.4: Edit text to more clearly state the minimum percentage(s) of those containers subjected to chemical screening by field and/or laboratory analysis. Provide basis for percentages.	Addendum B (Waste Analysis Plan) identifies the minimum percentages of physical and chemical screening of container.
Russell Jim	LLBG Trenches 31/34/94	9. Edit Section B.1.1.1.2.6: Edit text to also include that discrepancies must be reconciled within 15 days in compliance with WAC 173-303-370(4)(b).	Discrepant containers are managed in accordance with WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	10. Delete Section B.1.1.1.2.7: WAC 173-303-300(2) analysis of wastes. What is provided in the Initial Physical Screening Frequency Determination section is barely adequate. Maintain physical screening rates as indicated in Section B.1.1.1.2.4.	Addendum B (Waste Analysis Plan) identifies the minimum percentages of physical and chemical screening of container.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	11. Edit Section B.1.2 to include text that only LDR compliant waste will be managed [disposed] in Trench 31 & 34. [see previous comments regarding placement of; storage of; or staging of non-compliant LDR wastes in trenches or on associated waste storage pads].	Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensures no waste is accepted for disposal unless it meets LDR.
Russell Jim	LLBG Trenches 31/34/94	12. Edit Section B.2.1 to include evaluation of sampling data as part of the pre-shipment review. Include information required in Section B.2.1.3 as required. This will ensure the validity and support statement that the pre-shipment review consists of the waste stream approval and waste shipment approval process.	Addendum B (Waste Analysis Plan) ensures verification of knowledge is included in the pre-shipment review.
Russell Jim	LLBG Trenches 31/34/94	13. Edit Section B.2.1.1 and Figure B.3 to include statement: Waste that cannot be accepted at the LLBG Trenches 31 & 34 or at an alternative SWOC TSD unit shall be returned to the Generator.	Addendum B (Waste Analysis Plan) for LLBG Trenches 31 & 34 identifies that only LDR compliant waste is accepted for disposal. Waste received at the LLBG Trenches 31/34, Trench 94, CWC, WRAP, and T Plant must meet the waste acceptance criteria for the operating unit group DWMU.
Russell Jim	LLBG Trenches 31/34/94	14. Edit Section B.2.1.2 to include under waste description the quantity [volume] of the wastes [include differentiating the wastes] to ensure validity of waste descriptions.	Addendum B (Waste Analysis Plan) requirements ensure that the information provided on the waste shipment approval documentation is in accordance with the requirements of WAC 173-303-380 (1) (b)
Russell Jim	LLBG Trenches 31/34/94	15. Edit Section B.2.1.2 to include a new section describing the process of how and who is the responsible person for determining when any of the waste containers will be physically and/or chemically screened.	Addendum G (Personnel Training) includes all training requirements for personnel performing work within the Solid Waste Operation Complex. It also contains a description of the positions performing that work.
Russell Jim	LLBG Trenches 31/34/94	16. Edit Section B.2.1.3; (3) to include detailed chemical, physical, and/or biological analysis of waste to confirm the sufficiency and reliability of the “knowledge” used for the waste profile.	Addendum B (Waste Analysis Plan) ensures verification of knowledge is included in the pre-shipment review.
Russell Jim	LLBG Trenches 31/34/94	17. Edit Section B.2.2 Verification: Include text requiring treatment to meet LDR standards as part of the ‘pre-shipment review’ & verification process.	Addendum B (Waste Analysis Plan) for Trenches 31/34 & Trench 94 ensures no waste is accepted for disposal unless it meets LDR.
Russell Jim	LLBG Trenches 31/34/94	18. Edit Section B.2.2.1 to include text requiring submittal of a corrective action plan (CAP) that clearly states the reason for the conformance issues resulting in a waste container not meeting the LLBG Trenches 31 & 34 waste acceptance criteria and describes the actions required to prevent the recurrence and corrective actions to be taken.	Addendum B (Waste Analysis Plan) addresses the requirements for a Corrective Action Plan (CAP).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	19. Edit Section B.2.2.2.3: Require a minimum of 20% physical screening frequency. Clarify that the "20%" should only be applied to where it is absolutely known that the material inside the drums is exactly the same. State this frequency is per each waste stream and not collectively.	Addendum C (Process Information) discusses verification requirements.
Russell Jim	LLBG Trenches 31/34/94	20. Edit Section B.2.2.2.3: See comment #9 on maintaining initial screening frequency.	Addendum C (Process Information) discusses verification requirements.
Russell Jim	LLBG Trenches 31/34/94	21. Edit Section B.2.2.2.4 to include position title and training requirements for 'delegated representative.'	Addendum G (Personnel Training) includes all training requirements for personnel performing work within the Solid Waste Operation Complex. It also contains a description of the positions performing that work.
Russell Jim	LLBG Trenches 31/34/94	22. Edit Section B.2.2.3 to include quantitative evaluations in addition to qualitative testing [It is a part of the Waste Shipment Approval Process.]. Include tests for polycyclic aromatic hydrocarbons (PAH). Edit Table B.1 to include PAHs.	Addendum B (Waste Analysis Plan) addresses the analytical requirements for sampling of waste disposed of at the trenches.
Russell Jim	LLBG Trenches 31/34/94	23. Edit B.2.2.3.1 to clarify that the "20%" should only be applied to where it is absolutely known that the material inside the drums is exactly the same. State this frequency is per each waste stream and not collectively.	Addendum B (Waste Analysis Plan) discusses verification rates in detail. Initial rates are set for both on site and off site waste and those rates may go up or down depending on verification results.
Russell Jim	LLBG Trenches 31/34/94	24. Edit Section B.2.2.4 to include statement that tests will demonstrate compliance with WAC 173-303-090 requirements. Include statement that "a procedures document" for Trenches 31 & 34 that define the basis for selecting screening tests will be provided to Ecology for review and approval and attached as an Addendum to the WAP Addendum B. Include permit condition to require this submittal within 30 days of permit approval.	In accordance with Addendum B (Waste Analysis Plan), sampling will be performed in accordance with WAC 173-303-110(2) to ensure that the samples are representative of the waste being sampled.
Russell Jim	LLBG Trenches 31/34/94	25. Edit Section B.2.2.3.1 to include basis of choice of only 20% of containers being chemically screened. Clarify that the "20%" should only be applied to where it is absolutely known that the material inside the drums is exactly the same.	Addendum B (Waste Analysis Plan) discusses verification rates in detail. Initial rates are set for both on site and off site waste and those rates may go up or down depending on verification results.
Russell Jim	LLBG Trenches 31/34/94	26. Edit Section 2.2.4 to include statement that changes to sampling methods requires a permit modification per WAC 173-303-830/840 requirements.	Screening samples do not have sampling and analysis plans associated with them. Chemical screening of waste containers received for disposal at trenches 31 and 34 is done prior to receipt.

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Russell Jim	LLBG Trenches 31/34/94	27. Edit Section B.2.2.3.2 to qualify exemptions for asbestos and hazardous debris. For both, state require designation that waste doesn't also contain something else.	Designation for other constituents must occur prior to receipt of waste for final disposal at trenches 31 & 34. This designation would also require checking on state-only waste codes if there are no federal codes applied.
Russell Jim	LLBG Trenches 31/34/94	28. Edit Section B.2.2.5 to include statement requiring consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Addendum B (Waste Analysis Plan) states that Ecology will be responsible for review and acceptance of the laboratory QA Plans prior to commencement of analytical work.
Russell Jim	LLBG Trenches 31/34/94	29. Edit Section B.2.2.5.1as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites during the process [including the NDE process].	Waste Sampling and Analysis Plans are defined as secondary documents (TPA Section 9.2.1) and are not subject to dispute resolution. Section 6.5 of the TPA also provides EPA guidance and requirements for preparing waste sampling and analysis documents and QA/QC requirements.
Russell Jim	LLBG Trenches 31/34/94	30. Edit Section B.2.2.5.2 as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites during the process.	Waste Sampling and Analysis Plans are defined as secondary documents (TPA Section 9.2.1) and are not subject to dispute resolution. Section 6.5 of the TPA also provides EPA guidance and requirements for preparing waste sampling and analysis documents and QA/QC requirements.
Russell Jim	LLBG Trenches 31/34/94	31. Edit Section B.2.3.3 to include that discrepancies (i.e., 'conformance issues") must be reconciled within 15 days in compliance with WAC 173-303-370(4)(b) [see previous comments on Verification]	Addendum B (Waste Analysis Plan) addresses discrepant container management.
Russell Jim	LLBG Trenches 31/34/94	32. Section B.2.4: See comments on Section B.1.1.1.2.6	Addendum B (Waste Analysis Plan) addresses how discrepant containers are managed for the LLBG trenches 31 &34.
Russell Jim	LLBG Trenches 31/34/94	33. Edit Section 2.5bullet #5: Edit 2nd sentence to state: The container will be dispositioned by returning it to the generator for a detailed chemical, physical, and/or biological analysis of waste. The current LLBG container storage pads are not in compliance with WAC 173-303-630 requirements and a discrepant container does not meet LDR standards for placement on these pads.	Addendum B (Waste Analysis Plan) addresses when a container must be returned to the generator for further designation. The LLBG trenches 31 &34 storage pads are be authorized for storage of dangerous waste containers in accordance with WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	34. Edit Section B.2.5 3rd bullet to include details of separate spill containment area for segregated containers. Include requirements for secondary containment.	Addendum B (Waste Analysis Plan) addresses spill control, separation and segregation, and secondary containment requirements.

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Russell Jim	LLBG Trenches 31/34/94	35. Edit Section B.2.5 5th bullet to delete reference to use of LLBG container storage pads and state compliance with WAC 173-303-630.	The LLBG trench 31 & 34 storage pads are authorized as DWMU container storage areas and will comply with WAC 173-303-630
Russell Jim	LLBG Trenches 31/34/94	36. Edit Section B.2.5 7th bullet to state compliance with WAC 173-303-630 requirements.	The LLBG trench 31 & 34 storage pads are authorized as DWMU container storage areas and will comply with 173-303-630
Russell Jim	LLBG Trenches 31/34/94	37. Edit Section B.2.5 8th bullet to state schedule for discrepancy resolution will be within 15 days.	Addendum B (Waste Analysis Plan) addresses how discrepant containers are managed for the LLBG trenches 31 &34.
Russell Jim	LLBG Trenches 31/34/94	38. Edit Section B.2.6 to include statement that any Sampling and Analysis Plan shall comply with WAC 173-303-830/840 modification process. Include permit condition requiring submittal per WAC 173-303-830/840 process.	Addendum B (Waste Analysis Plan) addresses sampling and analytical requirements. Any changes to the WAP would require a permit modification. The WAP specifies when permit modifications are required.
Russell Jim	LLBG Trenches 31/34/94	39. Edit Section B.2.6 to include the following SAP requirements: • Any changes to the SAP regarding addition or elimination of COCs are subject to the WAC 173-303-830/840 modification process (including public reviews). • Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for	The Addenda B (Waste Analysis Plan) for the LLBG Trenches 31/34 and LLBG Trench 94, address all the sampling and analytical requirements for the units. A separate sampling and analysis plan (SAP) is not needed for these units.

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		analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and	

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		procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting;	

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		§ Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following:	

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		§ Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the Trenches 31 & 34 Facility permit.	
Russell Jim	LLBG Trenches 31/34/94	40. Edit Section B.2.7 to include requirements for a detailed chemical, physical, and/or biological analysis of waste to confirm the sufficiency and reliability of the “knowledge” used for the waste profile.	Addendum B (Waste Analysis Plan) discusses the use of acceptable knowledge and when additional sampling and analysis would be required.
Russell Jim	LLBG Trenches 31/34/94	41. Edit Section B.2.8.5 to state container storage locations will comply with WAC 173-303-630 requirements prior to placement of said container.	The LLBG trenches 31 & 34 are not authorized for storage. The storage pads are authorized as DWMU container storage areas and are compliant with WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	42. Edit Section B.2.9 to clarify location for storage of physical newly generated wastes.	The LLBG trenches 31 & 34 are not authorized for storage. The storage pads are authorized as DWMU container storage areas and are compliant with WAC 173-303-630.

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Russell Jim	LLBG Trenches 31/34/94	43. Edit Section B.4.5: Delete reference to II.E, for QA/QC; require consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	Addendum B (Waste Analysis Plan) was revised to address the correct General Standard Conditions.
Russell Jim	LLBG Trenches 31/34/94	44. Edit Section B.5.2 to include example of laboratory inspection checklist.	Addendum I (Inspection) was revised to include the inspection requirements of WAC 173-303-320
Russell Jim	LLBG Trenches 31/34/94	45. Edit Section B.5.3 to identify position of and qualifications of personnel performing reviews.	Addendum B (Waste Analysis Plan) has been revised to update the positions responsible for this information.
Russell Jim	LLBG Trenches 31/34/94	46. Edit Section B.7.1 to require 20% minimum of physical & chemical screening frequencies for verification. Clarify that the “20%” should only be applied to where it is absolutely known that the material inside the drums is exactly the same.	All waste received at LLBG trenches 31 & 34 for disposal will be LDR compliant. All waste is physically (visually) inspected upon receipt. Chemical screening is done prior to receipt for disposal.
Russell Jim	LLBG Trenches 31/34/94	47. Edit Section B.7.3 to identify position of and qualifications of personnel performing certification of LDR treatment. Edit to include disposition process of LDR waste which does not meet the applicable treatment standards.	Addendum B (Waste Analysis Plan) has been revised to update the positions responsible for this information. The WAP discusses the process for determining how LDR variances for waste that does not meet the applicable treatment standards is performed.
Russell Jim	LLBG Trenches 31/34/94	1. Revise/delete text supporting placement of [storing] containers next to trenches on an asphalt pad. Develop appropriate requirements for a WAC 173-303-630 compliant Container Storage area.	The storage pads are authorized as DWMU container storage areas and are compliant with WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	2. Use of precipitation data recorded from 1947 to 1969 is used to calculate Peak Flow for the 25 year, 24 hour precipitation depth of 4.0 centimeters. The use of outdated information is unwarranted. Recalculate using data which includes recent storm events and update permit Addendum C.	Addendum B (Waste Analysis Plan) was revised to reflect more recent precipitation data.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	3. Edit Addendum C to include the following from Addendum F : F.2.1.1 Unloading Operations as needed: • Methods used to prevent releases during unloading operations depend on waste form (e.g., containerized or bulk). The methods employed are as follows: 1. Containers shall be inspected for damage before being unloaded from the transport vehicle. 2. Containerized waste shall be handled by appropriate equipment (e.g., forklift or crane) during unloading. 3. Path from loading area to storage area shall be clear of obstructions. 4. Containers and bulk waste shall not be unloaded with winds in excess of 15 miles (24 kilometers) per 5 hours. 5. Bulk waste shall be handled in a manner to ensure that dispersal does not occur (e.g., use of fixatives while placing bulk waste in trenches and air monitoring).	Addendum C (Process Information) has been revised to address container management requirements. Where necessary, Addendum F (Preparedness and Prevention) is cited for additional requirements.
Russell Jim	LLBG Trenches 31/34/94	1. Edit Section C.1.2: Revise/delete text supporting placement of [storing] containers next to trenches on an asphalt pad. Include text to clarify the Container Storage area will be compliant with WAC 173-303-630-Dangerous Waste regulations for use and management of containers. As drafted, the permit would allow a non-compliant RCRA design in-lieu of building a compliant storage facility.	The storage pads are authorized as DWMU container storage areas and are compliant with WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	2. Edit Section C.1.3: Revise text to include details to ensure that all of WAC 173-303-830 requirements are met. Provide details of database tracking system; location of database; provide electronic link for public access records.	Addendum C (Process Information) was revised to address WAC 173-303-830 requirements. In addition, record keeping requirements were also addressed.
Russell Jim	LLBG Trenches 31/34/94	3. Edit Section C.2.1: Revise text to include details of how compliance with WAC 173-303-140(2) will be met prior to storage or disposal (i.e., upon initial receipt).	Addendum C (Process Information) was revised to include reference to Addendum B (Waste Analysis Plan) sections that discuss parameters needed to meet LDR requirements and LDR certification of treatment
Russell Jim	LLBG Trenches 31/34/94	4. Edit Section C.2.1: Revise text to include the details of how compliance with requirements of WAC 173-303-140(4)(b)(iii) & (iv) will be met.	Addendum C (Process Information) has been revised to address container management requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	5. Edit Section C.2.1: Revise text to include the details of how compliance with requirements of WAC 173-303-630(5)(a), (b), and (c) will be met.	Addendum C (Process Information) has been revised to address container management requirements.
Russell Jim	LLBG Trenches 31/34/94	6. Edit Section C.2.1.2: Revise text to include reference to WAC 173-303-630(6) requirements being met in Addendum XXX.	Addendum C (Process Information) was revised to include text referencing the inspection requirements for containers identified in Addendum I (Inspections)
Russell Jim	LLBG Trenches 31/34/94	7. Edit Section C.2.1.3: Revise text to include required sampling regardless of absence of visual indicators to ensure compliance with WAC 173-303-071(kk)(iii).	Addendum C (Process Information) discusses requirements for secondary containment systems. It also addresses when sampling might be required for spills or releases from secondary containment.
Russell Jim	LLBG Trenches 31/34/94	8. Edit Section C.2.13: Revise/delete text on discussion on containment systems for LLBG Trenches 31&34 with regards to container management. Containers and their management are subject to the requirements of WAC 173-303-630.	Addendum C (Process Information) discusses requirements for secondary containment systems. It also addresses when sampling might be required for spills or releases from secondary containment.
Russell Jim	LLBG Trenches 31/34/94	9. Edit Section C.2.1.2 & C.2.3: Revise text to include reference to WAC 173-303-630(8), (9), and (10) requirements being met in Addenda B & H.	Addendum C (Process Information) has been revised to address requirements in WAC 173-303-630.
Russell Jim	LLBG Trenches 31/34/94	10. Edit Section C.2.2: Revise text to include reference to WAC 173-303-140(4)(b)(iii) also required to be met. Edit Addendum B as necessary to include this requirement.	All waste accepted for disposal at LLBG Trenches 31 & 34 are LDR compliant in accordance with WAC 173-303-140.
Russell Jim	LLBG Trenches 31/34/94	11. Edit Section C.2.4.2: Edit to include specific compliance with WAC 173-303-630 (2),(3),(4),(5),(6),(8),(9), and (10) under WAC 173-303-200.	Addendum C (Process Information) has been revised to address requirements in WAC 173-303-630 and 173-303-200.
Russell Jim	LLBG Trenches 31/34/94	12. Edit Section C.2.4.2: Delete statement that “Once the temporary or final cap is placed over the trench, the high-capacity pump would be shut down.” In compliance with WAC 173-303-665(2)(i) and -665(6), the leachate system must be maintained during the active and post-closure care period.	The leachate collection system for Trenches 31 and 34 is operational while the trenches are open and will remain in operation once the cap is in place.
Russell Jim	LLBG Trenches 31/34/94	13. Edit Section C.3: Edit entire text to reflect current conditions, etc, not future situations. Revise to include ‘as built drawings’ to support calculations and determination of Action Leak Rate in Addendum C.1.	Addendum C (Process Information) addresses current process and operating conditions and all necessary drawings.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	14. Revise Section C.3 to include details of how the Liner System Engineering Analysis and Environmental Assessment has been demonstrated to not be affected by loads; stresses from installation or construction or operations; settlement; subsidence; uplift; internal and external pressure gradients; and/or the maximum quantity of waste, cover, and post-closure land use.	During the revision of Addendum C (Process Information) all documentation of engineered drawings and designs were reviewed by Ecology engineers.
Russell Jim	LLBG Trenches 31/34/94	15. Edit Section C.3: Edit text to include also reference to compliance with WAC 173-303-665(4) requirements. Include text and a permit condition to ensure minimal use of water for dust suppression.	Addendum C (Process Information) addresses the requirements for the use of water for dust control at the trenches.
Russell Jim	LLBG Trenches 31/34/94	16. Edit Section C.3.5: Delete statement that "A waste constituent not listed in the waste acceptance criteria can be accepted into the LLBG Trenches 31 & 34, provided the 9090A test results or other analytical data provided, demonstrates the waste constituent is compatible with the liner." This statement is not in compliance with the Dangerous Waste regulations-WAC 173-303. Include a permit condition requiring a modification per WAC 173-3036-830/840 to the waste acceptance criteria for these trenches (and require this permit condition in all LLBG units) prior to acceptance of waste constituents not listed in the waste acceptance criteria. LDR standards have to be met prior to placement of waste in the trenches.	Addendum C (Process Information) addresses the requirements for evaluating waste constituents for compatibility with the liner (e.g. EPA 9090A).
Russell Jim	LLBG Trenches 31/34/94	17. Edit Section 4.3: Edit statement that "This is expected to occur infrequently; however inspections will be conducted within seven days after significant storm events," to read as follows: This is expected to occur infrequently; however inspections will be conducted weekly and after storms in compliance with WAC 173-303-630(4)(b)."	Addendum C (Process Information) has an entire section which addresses the requirements for control of storm water. In addition, Addendum I (Inspection Plan) also addresses when inspections need to occur after a storm event.
Russell Jim	LLBG Trenches 31/34/94	18. Edit Section 4.1.2: Use of precipitation data recorded from 1947 to 1969 is used to calculate Peak Flow for the 25 year, 24 hour precipitation depth of 4.0 centimeters. The use of outdated information is unwarranted. Recalculate using data which includes recent storm events and update Addendum C.	Addendum C (Process Information) has an entire section which addresses the requirements for control of storm water. The design of the trenches addresses operation during a 25 year, 24 hour storm event (WAC 173-303-665(2)(d)).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	1. Edit and revise first sentence in Section E.1, line 5 as follows: Delete Refer to Permit Attachment 3, Security. State: “Security for the LLBG – Trenches 31 & 34 will comply with Permit Attachment 3, Security.”	The Permittees must comply with the requirements in Addendum E (Security), Permit Attachment 3, and any applicable Part I and II Conditions for active portions of the LLBG Trenches 31 & 34.
Russell Jim	LLBG Trenches 31/34/94	2. Edit permit condition III.17.E.1 to include “The Permittees will comply with the requirements of Permit Attachment 3.	The Permittees must comply with the requirements in Addendum E (Security), Permit Attachment 3, and any applicable Part I and II conditions for active portions of the LLBG Trenches 31 & 34.
Russell Jim	LLBG Trenches 31/34/94	3. There is nothing in Addendum E which demonstrates compliance with WAC 173-303-330 has been met (e.g., How is the public to know whether there is a requirement for annual review of the training provided per WAC 173-303-330(2)(b)). As this information was submitted with the application, it should have been attached to this Addendum.	Addendum G (Personnel Training) addresses the requirements of WAC 173-303-330.
Russell Jim	LLBG Trenches 31/34/94	1. Edit include reference to Addendum C as needed to support Section F.2.1.1 Unloading Operations.	Addendum C (Process Information) addresses the requirements for loading and unloading of waste disposed in Trenches 31 & 34.
Russell Jim	LLBG Trenches 31/34/94	2. Edit following statement in Section F.2.1.1: Waste may be staged at the waste unloading area no longer than necessary for placement into the trench; however, waste might be left in place overnight (e.g., should the daily operational shift end or weather conditions preclude movement) before waste is placed into the trench. To include statement that such waste will not be stage at the unloading area beyond 90 days and all contaminated waste awaiting disposal (including bulk waste) shall configured in a manner to ensure that dispersal does not occur (e.g., use of fixatives while placing bulk waste in trenches and air monitoring).	The waste storage pads located in each of the trenches are permitted storage areas. Waste may be staged in these areas as long as necessary before final disposal.
Russell Jim	LLBG Trenches 31/34/94	3. Edit Section F.2.2 Runoff statement that surface liquid evaporates to read; “Surface liquids are anticipated to evaporate.”	Addendum F (Preparedness and Prevention) addresses prevention of run-on/run-off and contamination to water supplies.
Russell Jim	LLBG Trenches 31/34/94	4. Edit Section F.2.3 Water Supplies to include statement that there will be minimal use of water for dust suppression.	Addendum C (Process Information) addresses the requirements for the use of water for dust control at the trenches. Addendum F (Preparedness and Prevention) refers to Addendum C (Process Information) for information on dust control.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	5. Edit Addendum F to include reference link to Waste Acceptance Criteria.	Addendum F (Preparedness and Prevention) refers to Addendum B (Waste Analysis Plan) for requirements addressing Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste. There is also a short discussion of this topic within Addendum F (Preparedness and Prevention).
Russell Jim	LLBG Trenches 31/34/94	1. Include title and hotlink to reference for public access to document: Refer to the LLBG, Trenches 31 & 34 Dangerous Waste Training Plan for a complete description of coursework in each training category.	Addendum G (Personnel Training) was revised to meet all requirements of WAC 173-303-330.
Russell Jim	LLBG Trenches 31/34/94	2. Revise Training Matrix as follows to include closure requirements and groundwater monitoring requirements: Training Category* Permit Attachment 5 Training Category General Hanford Facility training Contingency Plan training Emergency Coordinator training Operations & Closure Training Low-Level Burial Grounds – Trenches 31 & 34 Orientation Program Emergency Response (contingency plan) Emergency Coordinator training General Waste Management Container Management Landfill Ground Water Monitoring Job title/position Regulatory Compliance Staff X X X X X X Nuclear Chemical Operator X X X X X Environmental Compliance Officer X X Operations Supervisor X X X X X X Non-Resident Waste Service Provider X X X Non-Resident Sampler X X Field Groundwater Sampler X X X X • Groundwater well security & maintenance. X X • Equipment type [e.g., pumps, monitoring & sampling equipment], operational procedures and equipment maintenance. X X • Collecting, packaging & shipping of samples to field & off-site labs (including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering). X X	Addendum G (Personnel Training) was edited and revised to meet all the requirements of WAC 173-303-330.

Commenter	Unit Group	Comment	Comment Response
		• Chain of custody X Surveillance Personnel X X X X X X • Security inspections X • Surface inspections X • Benchmark inspections X • Groundwater Well inspections X X • Inspection of erosion damage & vegetative cover. X X • Replacement procedures for emergency & monitoring equipment X Well installation activities X X X X X	
Russell Jim	LLBG Trenches 31/34/94	• Addendum H does not satisfy all requirements of WAC 173-303-806(4)(xiii). The Part B Application requires submittal of a Closure Plan and Post Closure Plan which complies with WAC 173-303-610(3) and -610(8). Specific requirements of WAC 173-303-665(6), WAC 173-303-630(10), and WAC 173-303-806(4)(h)(v), must also be met.	Addendum H (Closure Plan) has been revised to address all regulatory requirements.
Russell Jim	LLBG Trenches 31/34/94	• Consideration of "Options" does not demonstrate compliance with Dangerous Waste regulations –WAC 173-303-610(3) & (8) requirements. Missing information, but are not limited to, a detailed description of the final cover to be established and its expected performance; detailed description of steps needed to remove or decontaminate all dangerous waste residues and contaminated containment system components, equipment, structures and soils, including methods for sampling and testing of surrounding soils and criteria for determining the extent of decontamination required to satisfy the closure performance standards. Simple statements do not meet compliance.	Addendum H (Closure Plan) does not address any decontamination or sampling requirements as it is a landfill unit. It will be closed with a RCRA compliant cover. Design and installation of this cover is addressed in milestone M-037-30 for the LLBG Trenches.
Russell Jim	LLBG Trenches 31/34/94	• Soil Closure Performance Standards under WAC 173-303-610(2) [i.e., MTCA Method B cleanup values] are required to be identified by Ecology and included in the Permit.	Addendum H (Closure Plan) does not address any decontamination or sampling requirements as it is a landfill unit.
Russell Jim	LLBG Trenches 31/34/94	• Estimates of the maximum inventory of dangerous wastes over the active life of the facility are given in process design capacities rather than actual inventory of dangerous wastes which is the requirements	While the trenches are in operation, the estimate of maximum inventory is correct. When the trenches close, the maximum inventory amounts will be revised to reflect actual conditions.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	• Required closure schedule missing; estimates of the time required to treat or dispose of all dangerous waste inventory and of the time required to place a final cover must be included. CERCLA actions under HFFACO should be integrated with the Permit rather than vice-a versa.	Addendum H (Closure Plan) includes a closure schedule and cites milestone M-037-30 for the planned closure activities.
Russell Jim	LLBG Trenches 31/34/94	• Section discussing ancillary equipment and its decontamination is confusing [H.5]. Ancillary equipment has not been defined in the permit. Include within the permit the specific location and details of this equipment and its secondary equipment, and instrumentation, etc, to provide justification that it does meet the definition of 'debris.' Otherwise it must be managed according to the appropriate WAC 173-303-610 closure requirement (i.e., piping per WAC 173-303-640(8) for example the leachate tanks.)	Addendum H (Closure Plan) does not address any decontamination or sampling requirements as it is a landfill unit.
Russell Jim	LLBG Trenches 31/34/94	• Section discussing contaminated soils is confusing [H.5.1]. Delete following statement: If approved by Ecology, this could allow waste that falls below specific health based levels to be disposed of without treatment LDR standards apply at the point of generation and these could still remain and would require treatment.	Addendum H (Closure Plan) does not address any decontamination or sampling requirements as it is a landfill unit.
Russell Jim	LLBG Trenches 31/34/94	General: Delete references throughout to operating organization. WAC 173-303- inspection requirements state responsibility for facility inspections remains with the owner and the operator. Edit to reflect this language.	Addendum I (Inspection Plan) was revised to reflect all inspection requirements.
Russell Jim	LLBG Trenches 31/34/94	1. Edit Section I.1: Edit statement "Abnormal conditions identified by inspections must be corrected on a schedule that prevents hazards to personnel, the public, and the environment as determined by a solid waste operations supervisor," as follows: The owner or operator must remedy any problems revealed by the inspection(s) on a schedule that prevents hazards to personnel, the public, and the environment.	Addendum I (Inspection Plan) includes requirements for correcting abnormal conditions found during inspections. These requirements include the time required to complete corrections.
Russell Jim	LLBG Trenches 31/34/94	2. Edit Section I.1.1 to include example of inspection checklist.	Addendum I (Inspection Plan) no longer includes an inspection checklist. All inspection and reporting requirements are described within the addendum.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	LLBG Trenches 31/34/94	3. Edit Section I.1.1.1 to include compliance with II.X.1.d specific items to be included in the inspections.	Addendum I (Inspection Plan) describes all inspection requirements.
Russell Jim	LLBG Trenches 31/34/94	1. Edit Section J.3.2.5.1 Delete statement In some cases, the conformance issue will result from receiving an off-site shipment, manifested pursuant to Permit, Condition II.N.2 or WAC 173-303-370 that is damaged or otherwise presents a hazard and cannot be transported. Furthermore, nothing in Condition II.N.2 deals with the issues presented in this section (J.3.2.5.1-conformance issues; damaged off-site shipments. Permit Attachment 4, Hanford Emergency Management Plan (DOE/RL-94-02) section 1.3.4 does not address this issue either. Off-site wastes should not be permitted to be buried on the Hanford site until a cumulative Risk Assessment indicates there will be no exceedances of groundwater cleanup standards.	Addenda B (Waste Analysis Plan) and C (Process Information) address waste acceptance criteria for the trenches. Addendum J (Contingency Plan) and Permit Attachment 4 both address responses to transportation issues.
Russell Jim	LLBG Trenches 31/34/94	2. Edit to also include WAC 173-303-145 as a requirement in statement: J.3.2.5 Hazardous Material, Dangerous and/or Mixed Waste Spill NOTE: For response to leaks or spills and disposition of leaking or unfit-for-use tank systems, requirements under WAC 173-303-640(7) and WAC 173-303-145 will be met.	Addendum J (Contingency Plan) was revised to address requirements for response to leaks and spills.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	SEPA: DNS based on clean closure yet statements are made without explanation of how Ecology determined the disposal of the Hexone Tank System as hazardous debris. The determination should be a MDNS at the minimum until all closure actions are finalized.	In 2018, Ecology rescinded the 2011 letter approving hexone tanks as hazardous debris (letter 18-NWP-192). The revised permit renewal (Rev 9A) includes a complete closure plan for the Hexone Storage and Treatment Facility. At a minimum, closure of the dangerous waste management unit (DWMU) will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure Plan; Amendment of Plan, which requires a written closure plan. After completion of Rev 9A, any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.
Russell Jim	Hexone	1. Statements in the Fact Sheet are confusing and inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit (e.gs. Contingency plans are a requirement of landfill closure under WAC 173-303-640(8)(b)]; the DQO process and development of SAPs and reasonable time periods).	The Rev 9A permit application includes a closure plan. At a minimum, closure of the Hexone Storage & Treatment Facility will comply with the closure and post-closure requirements of WAC 173-303-610, for all dangerous waste facilities, and WAC 173-303-640, Tank Systems.
Russell Jim	Hexone	2. Description of system doesn't include the 3 distillation vessels stored as mixed wastes-where are they? Why aren't the closure regs being applied? There is discussion of container storage area for rail tank cars but no information regarding their appropriate closure. Did this area close under the Dangerous Waste regulations? Provide rationale for closure decisions. Include required permit conditions for closure of these units and the container storage area for the railcars as necessary.	At a minimum, closure of the Hexone Storage and Treatment Facility (HSTF) will be compliant with the closure and post-closure requirements of WAC 173-303-610, for all dangerous waste facilities, and WAC 173-303-640, Tank Systems.
Russell Jim	Hexone	3. Section on type & quantity of waste has an error by a factor of 1000 times compared to the Part A form (20,000gals. Vs. 245, 000 gals).	The Fact Sheet and Part A provide details on hexone storage tanks 276-S-141 and 276-S-142 and their historical storage design capacities and working capacities.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	4. Lots of “if & may” words instead of “compliance with” language.	The intent of the fact sheet is to provide a summary of the most current and accurate information available on a specific waste site. The fact sheet for the Hexone Storage and Treatment Facility has been updated.
Russell Jim	Hexone	5. Statement made of requiring submittal of a revised Closure Plan because the original didn’t meet all closure requirements, so how could Ecology deem the application complete; why didn’t Ecology write conditions in this permit to rectify these? Closure Plan submitted 12/31/2010. There is an attached Addendum H containing a closure plan for this unit’s permit.	The Rev 9A permit application includes a complete closure plan for the Hexone Storage and Treatment Facility, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640.
Russell Jim	Hexone	6. Confusing statements about not implementing Groundwater monitoring plans if they Clean-Close all the while talking about not meeting Clean Closure.	The permit application Revision 9A includes a complete closure plan per the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640. If clean closure performance standards cannot be met at final closure of the Hexone Storage and Treatment Facility, groundwater monitoring will be required during the post-closure period per WAC 173-303-640(8) and WAC 173-303-645 (Releases from regulated units).
Russell Jim	Hexone	7. No explanation of how Ecology determined the disposal of the Hexone Tank System as hazardous debris. This statement is in conflict with the permit conditions stating that it will clean close. Tanks aren’t hazardous debris.	Ecology will ensure compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640, and WAC 173-303-140 (land disposal restrictions or LDR), as applicable, for closure of the Hexone Storage and Treatment Facility.
Russell Jim	Hexone	8. No discussion of the petition for a variance from the LDR for hexone tank bottoms which will be required if the unit is going to be disposed of as hazardous debris.	Ecology will ensure compliance with the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640, and WAC 173-303-140 (land disposal restrictions or LDR), as applicable, for closure of the Hexone Storage and Treatment Facility.
Russell Jim	Hexone	9. DOE/RL-2009-112, Rev 0 & DOE/RL-2009-116, Rev 0 Hexone Storage and Treatment Facility Closure Plan and SAP submitted in 2010, calculated soil clean-up values using Method C which is inconsistent with WAC 173-303-610.	Ecology will ensure compliance with the closure and post-closure requirements of WAC 173-303-610 (all dangerous waste facilities), and WAC 173-303-640 (tank systems), and WAC 173-303-140 (land disposal restrictions or LDR), as applicable, for closure of the Hexone Storage and Treatment Facility. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of an appropriate MCTA cleanup method will be dependent on the specific cleanup actions required for the Hexone Storage & Treatment Facility.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	10. No clarification of what dangerous waste constituents have been eliminated or what the DQO process is for the 200-IS-1 characterization since the units going to coordinate closure with this unit.	The Rev 9A permit application includes a complete closure plan (including a sampling and analysis plan), and meet the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640.
Russell Jim	Hexone	11. No list of other applicable laws discussed.	The fact sheet provides a summary of applicable HFFACO milestones and closure requirements from WAC 173-303 (Dangerous Waste Regulations) and WAC 173-340 (Model Toxics Control Act Regulations) as applicable, for closure of the Hexone Storage and Treatment Facility.
Russell Jim	Hexone	12. Permit Fact Sheets formats are inconsistent with each other. For better reader understanding the heading “Contingency Plan” should include the whole WAC 173-303-350 citation: ‘Contingency plan and Emergency Procedures.’	The intent of the fact sheet is to describe requirements for a unit-specific contingency plan (per WAC 173-303-350). Ecology will consider the recommendation for a title change to match the regulatory citation for the next permit revision (Revision 9).
Russell Jim	Hexone	1. No explanation of how Ecology determined the disposal of the Hexone Tank System as hazardous debris. This statement is in conflict with the permit conditions stating that it will clean close. Tanks aren’t hazardous debris.	The Rev 9A permit application includes a complete closure plan, and at a minimum, meets the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640, as applicable. Per Ecology's discussion with EPA (2013), a previous Ecology letter regarding classification of the tanks and grouted waste as debris was incorrect. Letter 18-NWP-192 (dated 11/30/2018)rescinded the previous classification of the tanks and grouted waste as debris.
Russell Jim	Hexone	2. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	3. Permit Condition identifying use of WAC 173-303-610(2)(i) is not included. Addendum H Table 6-1 closure standards do not reflect acceptable soil concentrations protective of groundwater (e.g., Hexavalent Chromium). The Clean Closure Standard for Hexavalent Chromium should be 0.2 mg.kg based on the variable 3-phased model with a Hanford Kd of 0. mL/g to be consistent across the Hanford site.	The Rev 9A permit application includes a complete closure plan, and at a minimum, meets the closure and post-closure requirements of WAC 173-303-610 (including WAC 173-303-610(2) for closure performance standards), and WAC 173-303-640, as applicable. The Hexone Storage and Treatment Facility (HSTF) is without secondary containment and does not currently require groundwater monitoring. However, in accordance with WAC 173-303-640(8), the HSTF is required to have a contingent closure and post-closure plan that includes provisions for complying with the groundwater monitoring requirements of WAC 173-303-645 (Releases from Regulated Units). If clean closure performance standards cannot be met at final closure of the HSTF, groundwater monitoring will be required during the post-closure care period.
Russell Jim	Hexone	4. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The Rev 9A permit application includes a complete closure plan for the HSTF. At a minimum, a complete closure plan will follow the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-340 (for tank systems). If closure plans are written based on CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration is described in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	Hexone	5. Permit lacks a compliance schedule in accordance with WAC 173-303-610 closure regulations. Additionally there's an incorrect application of WAC 173-303-815(3).	The Rev 9A permit application includes a complete closure plan, including a detailed schedule for closure of the dangerous waste unit per WAC 173-303-610 and WAC 173-303-340, as applicable. Permit conditions have been reviewed for a WAC 173-303-815(3) citation.
Russell Jim	Hexone	6. The YNERWM does not support any actions which preclude lean closure removal of the Hexone tanks (i.e., approval of the petition for LDR variance for Hexone Tank Bottoms).	A closure plan is completed for the Hexone Storage and Treatment Facility per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-340 (tank systems). Permit conditions include the Permittee's obligations to these closure regulations. As applicable for final closure, Ecology will require the Permittee to submit information in the closure plan demonstrating compliance with land disposal restrictions, including methods for treatment requirements that may be established using a site specific treatability variance (WAC 173-303-610(3)(a)(iv)).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	7. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). Unit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	A closure plan is completed for the Hexone Storage and Treatment Facility per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-340 (tank systems).
Russell Jim	Hexone	1. V.19.A.1: Confusing; edit to ensure that it is clear that all the requirements of WAC 173-303-610 are satisfied (i.e. WAC 173-303-610(3) requirements for a plan, the contingent closure plan, a contingent post-closure plan and a sampling and analysis plan) and are included in the Permit. SAPs are intended to be in place in the permit prior to the completion of any Milestone dates for closure actions.	The Rev 9A permit application includes a closure plan per the closure and post-closure requirements of WAC 173-303-610 (all dangerous waste facilities) and WAC 173-303-340 (tank systems). As applicable to the Hexone Storage and Treatment Facility (HSTF), a sampling and analysis plan is included in the closure plan.
Russell Jim	Hexone	2. V.19.B.1: Confusing since Addendum H includes a closure plan. Revise V.19.B.1 to state closure in accordance with Permit Condition V.19.A. Delete current V.19.B.1: Revise all permit conditions and Addenda to include the required information which was or should have been included in the Permit Application in accordance with Dangerous Waste closure requirements of WAC 173-303-806 & -610 (e.g., complete designs of landfill covers and detailed description of the steps needed to remove or decontaminate all dangerous waste residues and contaminated containment system components, equipment, structures, and soils, etc.). Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions.	Ecology will approve final closure plans submitted by the Permittee. The permit application includes a closure plan. At a minimum, the Permittee will comply with closure and post-closure requirements per WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems).
Russell Jim	Hexone	8. V.19.B.1.a: Questionable need for permit condition V.19.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	9. V.19.B.2 & 3: Revise: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	At a minimum, closure and post-closure of the Hexone Storage and Treatment Facility will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). The Rev 9A permit application includes a complete closure plan. Specific closure performance standards per the Dangerous Waste Regulations (WAC 173-303-610) are included in the closure plan. WAC 173-303-610(2), Closure Performance Standards, also includes provisions for cleanup requirements for the Model Toxics Control Act Regulations. For tank systems, closure and post-closure care requirements are included in WAC 173-303-640(8).
Russell Jim	Hexone	10. V.19.B.4: Delete or edit to reflect an enforceable permit condition in compliance with revised V.19.B.2 (see Comment #8).	The Rev 9A permit application includes a closure plan per the requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	11. V.19.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires all this information to be in the issued Permit. Update the Addenda to ensure compliance. Additionally, while points on the SAP are acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. Edit the Sampling and Analysis Plan included in Addendum H to include the following: • All transfer piping is to be subject to the same Dangerous Waste WAC 173-303-610 requirements and cleanup standards as Hexone Tank System ancillary equipment. • Tanks 276-S-141 & 276-S-142 are to be removed in one piece, macro-encapsulated, and disposed at a RCRA compliant disposal facility. • Any changes to the SAP regarding addition or elimination of COCs are subject to the WAC 173-303-830/840 modification process (including public reviews). Revise Table 2-6 to reflect these requirements.	Permit condition V.15.B refers to permit conditions for closure and post-closure. The Rev 9A permit application includes a closure plan, including an approved sampling and analysis plan, as applicable to the HSTF. At a minimum, closure and post-closure care of the HSTF will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (for tank systems). Ecology agrees that any required permit changes will be completed through a permit modification process as described in WAC 173-303-830, Permit Changes. Updated and complete addenda, as applicable, are included in the permit application.
Russell Jim	Hexone	In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)]	The Rev 9A permit application includes a closure plan, including an approved sampling and analysis plan, as applicable to the HSTF. At a minimum, closure and post-closure care of the HSTF will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (for tank systems). If required, any changes to analytical methods (in an approved sampling and analysis plan) will require prior Ecology approval through the permit modification process as described in WAC 173-303-830. Updated and complete addenda, as applicable, are included in the permit application.

Commenter	Unit Group	Comment	Comment Response
		• Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including:	

Commenter	Unit Group	Comment	Comment Response
		§ Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and	

Commenter	Unit Group	Comment	Comment Response
		systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid;	

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		§ Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the Hexone Storage and Treatment Facility permit.	
Russell Jim	Hexone	12. V.19.C.1: Revise: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan per the requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). The permit condition has been revised.
Russell Jim	Hexone	13. V.19.F: Revise: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda to include this condition's information and other WAC 173-303-610(3) required information.	Permit condition V.19.F refers to Addendum F, Preparedness and Prevention, which has been updated in the Rev 9A permit application.

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Russell Jim	Hexone	14. V.19.G: Contingency plans are a requirement of landfill closure under WAC 173-303-640(8)(b)]. Update Permit Addenda to include this condition's information and other WAC 173-303-610(3) required information.	The Rev 9A permit application includes a closure plan for the Hexone Storage and Treatment Facility per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). As applicable for the closure unit group, Addendum J (Contingency Plan) has been submitted.
Russell Jim	Hexone	15. V.19.I: Revise: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included.	The permit condition has been revised to be consistent with Ecology approved permit language for training.
Russell Jim	Hexone	16. No list of other applicable laws.	(Permit condition V.19.I) - The permit condition has been revised to be consistent with Ecology approved permit language for training.
Russell Jim	Hexone	17. Permit lacks a compliance schedule in accordance with -610(3) closure regulations. Incorrect application of WAC 173-303-815(3). Closure schedule in DOE/RL-2009-112, Rev 0 (located in Addendum H) indicates nearly 21/2 years for the completion of closure.	The Rev 9A permit application includes a closure plan for the Hexone Storage and Treatment Facility per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems), including a schedule for closure for the dangerous waste management unit per WAC 173-303-610(3).
Russell Jim	Hexone	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	Hexone	1. Addendum B: Reserved but information should have been submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	The Rev 9A permit application includes a complete closure plan, including an approved sampling and analysis plan, as applicable to the HSTF. At a minimum, closure and post-closure care of the HSTF will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (for tank systems). If required, any changes to analytical methods (in an approved sampling and analysis plan) will require prior Ecology approval through the permit modification process as described in WAC 173-303-830. Updated and complete addenda, as applicable, are included in the revised permit application.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	3. Addendum D: Reserved but information should have been submitted with application and should be included. Is there	Addendum D, Groundwater Monitoring Plan: The Rev 9A permit application includes a closure plan, and at a minimum, meets the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640, as applicable. As applicable to the Hexone Storage and Treatment Facility (HSTF), it is without secondary containment and does not currently require groundwater monitoring. However, in accordance with WAC 173-303-640(8), the HSTF is required to have a contingent closure and post-closure plan that includes provisions for complying with the groundwater monitoring requirements of WAC 173-303-645 (Releases from Regulated Units). If clean closure performance standards cannot be met for final closure of the HSTF, groundwater monitoring will be required during the post-closure care period.
Russell Jim	Hexone	4. Addendum E: Reserved but information should have been submitted with application and should be included. Required by WAC 173-303-310.	Addendum E, Security. The Rev 9A permit application includes a security plan.
Russell Jim	Hexone	5. Addendum F: Reserved but information should have been submitted with application and should be included. Required by WAC 173-303-340.	Addendum F, Preparedness and Prevention is included in the Rev 9A permit application.
Russell Jim	Hexone	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Also include training in following: • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	Addendum G, Personnel Training: The Rev 9A permit application includes a training plan.
Russell Jim	Hexone	• 200-IS-1 OU: Document is not final; Ecology cannot rely on this document ensure compliance with closure requirements of WAC 173-303-640 or the cleanup of the piping and other ancillary equipment for this TSD unit. Ancillary equipment should include both the effluent and affluent piping from the point of exit from the non-RCRA facility to the TSD unit to the next non-RCRA facility.	The Rev 9A permit application includes a closure plan. As applicable, the level of detail required for determining appropriate cleanup levels will be included in closure and post-closure care plans required per WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640(8), tank systems.

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Russell Jim	Hexone	• Clean Closure Levels for tank system COCs: Soil Concentrations protective of Groundwater values in Table 6-2: Chromium VI: 18.4 mg/kg used instead of .2mg/kg: Unclear where the 270mg/kg for Lead is derived from, why isn't the MCL of 15ug/l used as it is more protective? Ecological values are for only wildlife and don't include biota, etc. When did Ecology agree and how did Ecology agree to use industrial cleanup Method C for this site? [See comments from Ecology: Ecology's comments on the Response Action Report for 200-MG-1 Operable Unit Waste Site 600-26, DOE/RL-2010-66, Draft indicate disagreements with future land use designations. Ecology requested deletion of designation for future land use as 'conservation and mining' and use of 'unrestricted.' Ecology also requested reduction in the detection level for arsenic to 1 mg/kg (values of less than 1 mg/kg are achieved in the river corridor). Ecology rejected use of 18.4 mg/kg for soil pathway to groundwater for hexavalent chromium because it is not protective. Ecology requested ecological protection values be added to Table 2 and noted site as failing the 3-part and 2-part tests for hexavalent chromium.] Edit to reflect unrestricted use cleanup levels.	The Rev 9A permit application includes a closure plan. As applicable, the level of detail required for determining appropriate cleanup levels will be included in closure and post-closure care plans required per WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640(8), tank systems.
Russell Jim	Hexone	• Unclear how it is determined that there are events which may result in any potential threats to human health or the environment. Edit to clearly define intent of text and what actions are to be taken under the Dangerous Waste regulations.	This comment is included with comments on Addendum H, Closure Plan. The Rev9A permit application includes a closure plan. At a minimum, closure of the Hexone Storage and Treatment Facility (HSTF) will follow the requirements of WAC 173-303-610(3). Per Ecology and EPA discussion (2013), revisions to the permit language, "potential threats to human health or the environment,' have been updated. Even though closure of the dangerous waste management unit will follow closure per the requirements of WAC 173-303-610 and WAC 173-303-640, in the event the Permittee cannot practicably close the facility within a 180 day window per WAC 173-303-610(4)(b), a closure delay could occur (such as delays due to a waste site's complexity, nature of the waste, or other closure decisions related to potential waste treatment or soil and groundwater considerations. Compliance schedules will be incorporated for the dangerous waste management unit to ensure the closure process protects human health and the environment, meets dangerous waste regulations, and minimizes long-term post closure care and environmental impact.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	Hexone	• These tanks are not empty so how is compliance with WAC 173-303-640(6) ensured under the current proposed inspection schedule.	The Rev 9A permit application includes a closure plan. At a minimum, closure of the Hexone Storage and Treatment Facility will follow the requirements of WAC 173-303-610(3), Closure plan; Amendment of Plan, which requires a written closure plan, and WAC 173-303-640(8), Closure and Post-Closure Care for Tank Systems. Even though closure of the dangerous waste management unit will follow closure per the requirements of WAC 173-303-610 and WAC 173-303-640, in the event the Permittee cannot practicably close the facility within a 180 day window per WAC 173-303-610(4)(b), a closure delay could occur (such as delays due to a waste site's complexity, nature of the waste , or other closure decisions related to potential waste treatment or soil and groundwater considerations. Compliance schedules will be incorporated for the dangerous waste management unit to ensure the closure process protects human health and the environment, meets dangerous waste regulations, and minimizes long-term post closure care and environmental impact.
Russell Jim	Hexone	8. Addendum I: Edit to reflect compliance with WAC 173-303-640(6) requirements. Should also coordinate and incorporate requirements listed for the 200-UP-1 OU inspection requirements and the following. Inspection Schedule for the Hexone Storage and Treatment Facility Operable Unit Surveillance of Hexone Tank system Daily Surface Inspections Daily Security control devices: well caps, and locks Daily Well condition Daily Subsurface well condition 3 to 5 years	At a minimum, the Permittees will follow the requirements of Addendum I (Inspections) of the Hexone Storage and Treatment Facility Closure Unit Group 19, and Permit Condition II.X, (Inspections) of the Hanford Dangerous Waste Permit. The Rev 9A permit application includes an inspection plan.
Russell Jim	Hexone	9. Addendum J: Reserved but information should have been submitted with application and should be included. This information is required by WAC 173-303-350.	Addendum J, Contingency Plans is included in the Rev 9A permit application.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	General	SEPA: Based on old previously submitted SEPA checklists. Use the SEPA checklist submitted with the new Part B Application. Determinations are previous determinations. Permit permits require new evaluations. Indicates an approved post-closure plan exists when it does not.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.
Russell Jim	1325-N	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations. Ecology did not accept the certification of closure from the permittee. Partial closure of an individual unit is not authorized under WAC 173-303- regulations. Implication that there's been an approved Closure without the public review process.	Unsure what the commenter is referring to. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure)." 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	2. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A Groundwater Monitoring Report will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	3. No list of other applicable laws.	This information is not required to be in a fact sheet (173-303-840(2)(f)). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	1. All required information to write a Permit should have been submitted with Permit Application in 2004 [required by WAC 173-303-806]. All "Reserve" Addendums should be complete and in the permit. Correct and include all required information in permit Addenda.	The permit in 2004 was complete. The closure plan stated that if the unit could not be clean closed then a cover would be designed. Cleanup data confirm that the unit can meet clean closure requirements. No cover design will be necessary. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	Additionally, it must first be determined by Ecology that the sites will need to closure under the Landfill regulations [WAC 173-303-665]. As the designated land use for the 100-N area is not industrial property nor will it be in the foreseeable future, use of WAC 173-340-745(5) is in appropriate.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. WAC 173-340-745(5) refers to “Soil cleanup standards for industrial properties” which does not apply to this unit. The proposed land use is rural/residential and cleanup levels were calculated based on MCTA Method B. (CVP 2002-0002). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	What was the process of Ecology’s acceptance of closure certification? There is not an approved closure plan. The Dangerous Waste regulations do not authorize closure of a RCRA facility via a CERCLA document. The TPA section 5.3 states “All TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with 173-303 WAC.”	An approved closure plan does exist and has been implemented. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	Request for submittal of updated post-closure plan to include placement of a cover; placement of a cover should have been a closure action. How can the unit be in post-closure if this action remains uncompleted? Clarification of authority and basis of decision making in compliance with WAC 173-303 requested.	An approved closure plan does exist and has been implemented. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	2. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The permit in 2004 was complete. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Compliance schedules will no longer be included. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	3. No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include in the Permit, the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The closure plan contains the closure performance standards and is a part of the permit. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	4. Reference to closure actions under non-existent CERCLA document violates DW closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Write a closure plan to include required information.	An approved closure plan does exist and has been implemented. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	5. Incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The 173-340-410 reference provided in this comment does not exist in the section called out by the commenter. Unsure what the commenter is referring to. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	6. No compliance schedule in compliance with WAC 173-303-610(3).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Compliance schedules will no longer be required under the Dangerous Waste Regulations after clean closure." 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	7. No list of other applicable laws. Include them.	This is not a requirement for a permit. It is required for the Part A permit application. This application is contained in Permit Addendum A. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	8. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	1. VI.3.B.1: Revise VI.3.B.1 to state closure in accordance with Permit Condition VI.3.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610.	Permit condition VI.3.B.1 does not need to be revised to restate what permit condition VI.3.A already states. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	2. VI.3.B.1 & 2: Delete or revise: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers].	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure.. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	3. VI.3.C.1 & 2: Delete/revise: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. In addition, include the following as required in the Sampling and Analysis Plan (SAP), and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)]	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure.. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

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		• A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable);	

Commenter	Unit Group	Comment	Comment Response
		§ Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s);	

Commenter	Unit Group	Comment	Comment Response
		§ Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination;	

Commenter	Unit Group	Comment	Comment Response
		§ Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 1325-N permit.	
Russell Jim	1325-N	4. VI.3.D.1: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above. More well should be included; see below.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Compliance schedules will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	5. VI.3.D.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure.

Commenter	Unit Group	Comment	Comment Response
			1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	6. VI.3.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	1. Addendum B: Reserved but information was submitted with application and should be included.	Addendum B is reserved for a waste analysis plan, which are only required for operating units. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	2. Addendum C: Reserved but information was submitted with application and should be included.	Addendum C, relates to Process Information for operating units. As this unit is not operational, the addendum does not require submittal of process information. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. As presented, this is for an interim status permitted facility; Hanford is permitted as a final status facility.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at

Commenter	Unit Group	Comment	Comment Response
		o Statements made that Ecology has accepted data from non-RCRA compliant wells for years does not make it acceptable in this permit. o Submittal dates for required GW monitoring plan activities not included. o The groundwater monitoring plan referenced cites very old QA/QC documents instead of Ecology's more direction [Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies]. o List of wells for groundwater monitoring is short & with 3 out of 5 wells not RCRA compliant and should also include 119-N-002, 199-N-017,199-N-018,199-N-021,199-N-027,199-N-028,199-N-31, 199-N-041,199-N-054, ,199-N-059,199-N-064,199-N-067,199-N-070,199-N-072,199-N-073,199-N-075,199-N-076,199-N-077,199-N-080,199-N-092A,199-N-096A, 199-N-099A ,199-N-103A, and 199-N-106A 199-N-16, 199-N-19, 199-N-21,199-N-26, 199-N-56, 199-N-57, and 199-N-64. o List of Contaminants of Concern is short and should also include antimony, arsenic, barium, beryllium, boron, cadmium, carbon tetrachloride, gross alpha, gross beta, hydrazine, iron, lead, manganese, magnesium, nickel, nitrate, phosphates ruthenium-106, sulfate, tetrachloroethene, tin, tritium, uranium-235, vanadium, and zinc (and those from the expanded ICP Metals list not previously listed).See DOE/RL-2000-16, Rev.2 (Remedial Design Report/Remedial Action Work Plan for the 100-NR-1 TSD units) o Methods based approach is not used. o Filtered sampling is use instead of non-filtered per regulations. o Repairs & replacement of monitoring wells is per 'approved contractor procedures' rather than WAC 173-160-. Any new wells need to be RCRA compliant wells. o Inconsistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Needs to clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing.	these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum E will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	Addendum F (Preparedness and Prevention) relate to operating units and not closure units. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum G will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	7. Addendum H: Reserved: Closure: Statement that the Closure Plan presents the physical remedial activities and sampling and analysis required to comply with WAC 173-303-610 but there is no Closure Plan for public review included in Addendum H which meets these requirements. Addendum H text is outdated and incomplete and needs extensive revision. Other discussion regarding 'Alternatives' should be deleted. o Modified Closure option discussed. This is not allowed per Dangerous	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure.

Commenter	Unit Group	Comment	Comment Response
		Waste-WAC 173-303 regulations. o Document cites use of Method C instead of Method B cleanup levels. Note: This TSD unit lies within a Traditional Cultural Property. The remedy chosen indicates infringement of Yakama Nation Treaty rights and violation of the NHPA laws. Final decisions on the permit of this unit cannot be made without consultation with the Yakama Nation ERWM Program manager and cultural staff. o Closure Schedule is old and non-compliant with closure requirements. o References an unavailable document which is to direct RCRA closure activities rather than permit conditions which require unit specific closure actions to be performed. Statement made that the Permit will need to be consistent with CERCLA remedial actions instead of direction to CERCLA as to what specific actions/ARARs are to be included in the ROD for these actions. o Incomplete list of constituents of concerns (COCs) and should include antimony, arsenic, barium, beryllium, boron, cadmium, carbon tetrachloride, gross alpha, gross beta, hydrazine, iron, lead, manganese, magnesium, nickel, nitrate, phosphates ruthenium-106, sulfate, tetrachloroethene, tin, tritium, uranium-235, vanadium, and zinc (and those from the expanded ICP Metals list not previously listed). o Sampling and analysis plan identified [DOE 2000a] should be included and sent out for public review. Document is currently not available; incorrect citation or reference to a non-existent document. o Statements made that verification sampling to determine MTCA compliance for direct soil contact will not be required is inconsistent with the requirements for RCRA closure. Statements made that ancillary equipment [i.e. piping] may be left in place is neither acceptable nor correct and must be removed/treated/disposed. Soils underneath piping must also be sampled in addition to being surveyed. o Reference is made to non-compliance with Land Disposal Restrictions. It must first be determined that the sites will need to closure under the Landfill regulations [WAC 173-303-665]. o Very old QA/QC documents instead of Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.	1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	8. Addendum I: Revise as indicated and should also coordinate and incorporate requirements listed for the 100-NR-2 OU inspection requirements. Inspection Schedule for the 1325-N Ditch Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 3 to 5 years	This information is contained in the Postclosure plan in Addendum K of the permit for 1301-N. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1325-N	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610	Addendum J is reserved for operating units, and does not pertain to closure or post closure units. 1325-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1325-N	10. Addendum K: As a Post-Closure Plan, it discusses Modified Postclosure/Institutional Controls and Periodic Assessments and cites several non-existent Part II conditions. o Document refers and includes discussion of the 1301-N unit. o Postclosure groundwater monitoring program cited does not consistent with nor reflect use of alternative requirements. o Incorrect application of MTCA [173-340-410]. o Request for submittal of updated post-closure plan to include placement of a cover; placement of a cover is a closure action; the unit should still be in closure. o Some of information within this document on personnel training, inspection, security, etc belongs in this draft permit's appropriate Addendums. o Modified closure options are not in accordance with WAC 173-303-610.	No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". Only strontium-90 is present at 1301-N TSD and has been remediated from the surface to 15 feet below ground surface or deeper. Strontium-90 is detected in groundwater at these units and will be addressed through the CERCLA remediation process that is ongoing at this time. In addition Washington State does not have authority under RCRA or its state law equivalent, RCW 70.105, to address cleanup of radiological contaminants. USDOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. These units meet the closure performance standards established under WAC 173-303-610. Excavation of the Liquid Waste Disposal Facilities was completed before 2005 with confirmation of the cleanup occurring in 2011. A Post-Closure Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	General	SEPA: Indication of submittal of a required closure plan and closure actions under M-037- 10 & -02 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	207-A SRB	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	Thank you for your comment. A contingency plan is not a requirement for closing a dangerous waste management unit under WAC 173-303-610, Closure and post-closure.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	2. Statements in Fact Sheet inconsistent with Dangerous Waste –WAC 173-303. Simply because the unit is not included in a groundwater monitoring network, does not exclude the requirement for groundwater monitoring under WAC 173-303-610(3).	Thank you for your comment. The Permittees have proposed to clean close the 207-A SRB. The unit was closed in 8C in 2017.
Russell Jim	207-A SRB	3. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b)	Thank you for your comment. Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b). The Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology reviewed the plan and found it complies with WAC 173-303-610(3) requirements.
Russell Jim	207-A SRB	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Thank you for your comment. Ecology agrees. The Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology reviewed the plan and found it complies with WAC 173-303-610(3) requirements. A new fact sheet was prepared and was issued for public comment with the draft permit modification, in accordance with WAC 173-303-840.
Russell Jim	207-A SRB	5. No list of other applicable laws discussed.	Thank you for your comment. Ecology agrees. Throughout the Fact Sheet, the regulations appropriate for the text indicated is included. However, Site-wide Permit Condition I.E.2 addresses the applicability of other environmental laws at the Hanford Facility.
Russell Jim	207-A SRB	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Requirement of submittal of a Part A to correct errors after approval should have resulted in the denial of the permit application. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	207-A SRB	2. No Performance Standards included in permit. Required by WAC 173-303-283.	Thank you for your comment. The Permittees proposed to clean close the 207-A SRB and it was closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	3. No closure plan(s) in the new RCRA permit(s) although these were submitted. DOE submitted a Closure Plan for 207-A SRB (DOE/RL-2005-89, Draft A). Delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	Thank you for your comment. The Permittees proposed to clean close the 207-A SRB. The Permittees submitted a closure plan to meet the M-037-02 milestone. Since that submittal, the Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology reviewed the plan and found it complies with WAC 173-303-610(3) requirements. The units was closed in Rev 8C in 2017.
Russell Jim	207-A SRB	4. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion).	Thank you for your comment. To the extent technically feasible, Ecology hyperlinked WAC references in the draft permit conditions and draft closure plan. The Permittees submitted a closure plan to meet the M-037-02 milestone. Since that submittal, the Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology reviewed the plan and found it complies with WAC 173-303-610(3) requirements. The units was closed in Rev 8C in 2017.
Russell Jim	207-A SRB	1. V.9.B.1: Revise V.9.B.1 to state closure in accordance with Permit Condition V.9.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Dangerous Waste closure regulation require these details in an approved Closure Plan	Thank you for your comment. The draft closure plan complies with WAC 173-303-806 (Final facility permits) and WAC 173-303-610 (Closure and post-closure). The unit was closed in Rev 8c in 2017.
Russell Jim	207-A SRB	2. Delete current V.9.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	Thank you for your comment. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	3. V.9.B.1.a: Questionable need for permit condition V.9.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	Thank you for your comment. A SEPA checklist was submitted with the draft closure plan for Ecology's review. Ecology issued a Determination of Nonsignificance.
Russell Jim	207-A SRB	4. V.9.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	Thank you for your comment. Hanford Federal Facility Agreement and Consent Order (TPA) Milestone, M-037-10 was written for completion of closure requirements. The milestone due date is 9/30/2020. The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	5. V.9.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	Thank you for your comment. New permit conditions were written for public comment as part of the Class 3 modification to the Revision 8c Permit. The closure performance standards from WAC 173-303-610(2)(a)(i)-(iii) were included in the closure plan. MTCA Method B cleanup levels for unrestricted land use were used in the closure plan. No release has been confirmed at this time, and ecological receptors are not at risk if there is no release. Provisions for excavation of contaminated soil is also addressed in the closure plan.The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	6. V.9.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	Thank you for your comment. The Permittees submitted a closure plan as a Class 3 permit modification request. Ecology reviewed the plan and found it complies with WAC 173-303-610(3) requirements. The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	7. V.9.B.8 & 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and,	Thank you for your comment. Analytical work was performed in compliance with the guidance in the Hanford Analytical Services Quality Assurance Requirements Document (DOE/RL-96-68, Rev. 4). Analytical methods and procedures were performed at laboratories that are accredited by the State of Washington. Section 9.6 of the TPA identifies sampling and analytical requirements. Analytical data delivery schedules are included in section 9.6.6 of the TPA. Soil sample locations and procedures for 207-A SRB closure are discussed in Section 4.6.2 and detailed in Appendix A of the closure plan.The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
		§ A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and,	

Commenter	Unit Group	Comment	Comment Response
		§ Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used	

Commenter	Unit Group	Comment	Comment Response
		to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data	

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		will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-A-37-1 permit.	
Russell Jim	207-A SRB	8. V.9.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit.	Thank you for your comment. Post-closure was addressed in the closure plan, and Permit Condition V.5.B.5. The Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology has reviewed the plan and found it complies with WAC 173-303-610(3) requirements. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	9. V.9.D: To ensure compliance with the Dangerous Waste Regulations, require Addenda B & H to include WAC 173-303-610(3) required information. No list of other applicable laws.	Thank you for your comment. Sampling and analysis and closure and postclosure are addressed in the closure plan. Site-wide Permit Condition I.E.2 addresses the applicability of other environmental laws at the Hanford Facility.
Russell Jim	207-A SRB	10. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding “double jeopardy” are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be “duplication of efforts” as two separate documents are not necessary.	Thank you for your comment. The 207-A SRB clean closed in Rev 8c in 2017, and RCRA-CERCLA integration was not required.
Russell Jim	207-A SRB	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	Thank you for your comment. The Permittees revised the closure plan and submitted it as a Class 3 permit modification request. Ecology has reviewed the plan and found it complies with WAC 173-303-610(3) requirements. The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	1. Addendum B: Reserved but information was submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. Include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the	Thank you for your comment. Analytical work was performed in compliance with the guidance set forth in the Hanford Analytical Services Quality Assurance Requirements Document (DOE/RL-96-68, Rev. 4). Analytical methods and procedures were performed at laboratories that are accredited by the State of Washington. Section 9.6 of the TPA identifies sampling and analytical requirements. Analytical data delivery schedules are included in section 9.6.6 of the TPA. Soil sample locations and procedures for 207-A SRB closure are discussed in Section 4.6.2 and detailed in Appendix A of the draft closure plan. The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
		precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for	

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		effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and	

Commenter	Unit Group	Comment	Comment Response
		conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees	

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		shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 207-A-SRB permit.	
Russell Jim	207-A SRB	2. Addendum C: Reserved but information was submitted with application and should be included.	Thank you for your comment. Process information necessary for closure decisions was included in the closure plan. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	3. Addendum D: Reserved. However, U.S. DOE defined contamination at the 207-A South Retention Basin through remedial investigations (DOE/RL-2004-25 DRAFT A). The following are indicated to be contaminants of concern (COCs) and should be identified as such in the permit: • Spent halogenated and nonhalogenated solvents (F001, F002, F003, F004, and F005)(Acetone, Cresol-m, Cresol-o, Cresol-p, Methylene Chloride, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Trichloroethene) • silver, • arsenic, • nitrate, • tributyl phosphate, • 2,4-dichlorophenoxyacetic acid, • 2-(2,4,5-trichlorphenoxy) • propionic acid, • acetone, • chloroform, • butyl benzyl phthalate, • and the state-only dangerous waste, ammonia (WT02).	Thank you for your comment. The closure plan includes carbon tetrachloride and chloroform as possible dangerous waste constituents in case the Hypalon® liner is degraded at the time of removal. If the liner is not degraded and in good condition at removal, these analyses will not be required. Dangerous waste constituents were sampled in 2003, and concentrations were less than the MTCA Method B cleanup levels for unrestricted land use, except for arsenic. The maximum arsenic concentration in soil samples collected in 2003 was less than the 20 milligrams per kilogram (mg/kg) background/cleanup level. Applicable dangerous waste constituents are included in the closure plan. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	Thank you for your comment. The 207-A SRB closure unit is not operational. Security information relevant to closure activities is included in the closure plan. The 207-A SRB clean closed in Rev 8c in 2017.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	207-A SRB	5. Addendum F: Reserved. Required by WAC 173-303-340	Thank you for your comment. Preparedness and prevention requirements in WAC 173-303-340 are not applicable to closing units. As discussed in the closure plan, field operations were performed in accordance with applicable health and safety requirements. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	207-A SRB	6. Addendum G: References an unavailable document rather than including it within this addendum.	Thank you for your comment. Training requirements related to closure are described in the Closure Plan.
Russell Jim	207-A SRB	7. Addendum H: Information should have been submitted with application	Thank you for your comment. A closure plan was submitted in 2015 as part of the Class 3 permit modification request.
Russell Jim	207-A SRB	8. Addendum J: Reserved but information should have been submitted.	Thank you for your comment. Because the 207-A SRB no longer accepts liquid waste and is not in operation, there is no need for a unit-specific contingency plan. Condition II.A describes the requirements for facility contingency planning in Revision 8c. The 207-A SRB clean closed in Rev 8c in 2017.
Russell Jim	General	SEPA: Based on old previously submitted SEPA checklists; determinations are previous determinations. Permit permits require new evaluations.	Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination in accordance with WAC 197-11 and it is provided with the draft permit renewal. For more information, please see the overall fact sheet as well as the SEPA Determination and Notice of Adoption available with the draft permit renewal.
Russell Jim	1301-N	1. Facility identified by what occurred at the site rather than by the appropriate Dangerous Waste Regulatory basis. Unit is subject to regulations under WAC 173-303-650 for Surface Impoundments.	Fact Sheets will not be updated, however, the regulation citations are included in the permit conditions. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	2. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations. Partial closure of an individual unit is not authorized under WAC 173-303- regulations. Implication that there's been an approved Closure Plan without the public review process.	Unsure what is being referred to. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	3. Wavier [variance] to regulations (WAC 173-303-645(11) identified without justifications [no references to supporting documentation]).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A Groundwater Monitoring Report will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). A Groundwater Monitoring Report will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	5. No list of other applicable laws.	This information is not required to be in a fact sheet (173-303-840(2)(f)). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	6. Nothing addresses or references cleanup of PCBs.	Since the closure activity to close the site is removing, treating, if necessary and disposing of the contaminated structures and soils, any existing PCBs were removed and disposed of properly. Soil analysis indicated that the contamination in the trench has met closure performance standards. The associated pipelines will be closed in a similar fashion. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	7. Incorrect reference to other parts within the permit [e.g. Saying Post Closure will be done under the Addendum for Closure rather than the appropriate addendum containing the plan].	Since the closure/postclosure plan was submitted in one document, it was decided to put it under the closure addendum. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	1. All required information to write a Permit should have been submitted with Permit Application in 2004 [see Attachment #41 of 2004 submittal; required by WAC 173-303-806]. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The permit in 2004 was complete. The closure plan stated that if the unit could not be clean closed then a cover would be designed. Cleanup data confirm that the unit can meet clean closure requirements. No cover design will be necessary. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The closure plan contains the closure performance standards and is a part of the permit. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	3. Reference to closure actions under non-existent CERCLA document violates DW closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Conditions directing closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	An approved closure plan does exist and has been implemented. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	4. Incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The 173-340-410 reference provided in this comment does not exist in the section called out by the commenter. Ecology is unsure what is being referred to in this comment. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	5. No compliance schedule.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Compliance schedules will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	6. No list of other applicable laws.	This is not a requirement for a permit. It is required for the Part A permit application. This application is contained in Permit Addendum A.
Russell Jim	1301-N	7. Focused Feasibility Study needed to deal with hexavalent chromium concerns	A focused feasibility study is not required as part of this permit. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	8. Nothing addresses or references cleanup of PCBs	PCBs have not been identified as a contaminant of concern. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	9. TPH remediation and SAP should be under the RCRA permit. The SAP should have gone out for public review in compliance with WAC 173-303-830.	There is no TPH contamination related to the 1301-N or 1325-N units. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	10. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding “double jeopardy” are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be “duplication of efforts” as two separate documents are not necessary.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The permit in 2004 was complete. The closure plan stated that if the unit could not be clean closed then a cover would be designed. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	1. Addendum B: Addendum H cites a Sampling and Analysis Plan outside the permit; regulations require inclusion of this within the permit while permit says “Reserved”.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	2. Addendum C: Reserved but information was submitted with application and should be included.	Addendum C, relates to Process Information for operating units. As this unit is not operational, the addendum does not require submittal of process information. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. As presented, this is for an interim status permitted facility; Hanford is permitted as a final status facility.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure) which means that groundwater monitoring is not necessary. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	o Statements made that Ecology has accepted data from non-RCRA compliant wells for years does not make it acceptable in this permit.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	o Submittal dates for required GW monitoring plan activities not included.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	o The groundwater monitoring plan referenced cites very old QA/QC documents instead of Ecology's more direction [Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies].	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	o List of wells for groundwater monitoring is short & with 3 out of 5 wells not RCRA compliant and should also include 119-N-002, 199-N-017,199-N-018,199-N-021,199-N-027,199-N-028,199-N-31, 199-N-041,199-N-054, ,199-N-059,199-N-064,199-N-067,199-N-070,199-N-072,199-N-073,199-N-075,199-N-076,199-N-077,199-N-080,,199-N-092A,199-N-096A, 199-N-099A ,199-N-103A, and 199-N-106A 199-N-16, 199-N-19, 199-N-21,199-N-26, 199-N-56, 199-N-57, and 199-N-64.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	o List of Contaminants of Concern is short and should also include antimony, arsenic, barium, beryllium, boron, cadmium, carbon tetrachloride, gross alpha, gross beta, hydrazine, iron, lead, manganese, magnesium, nickel, nitrate, phosphates ruthenium-106, sulfate, tetrachloroethene, tin, tritium, uranium-235, vanadium, and zinc (and those from the expanded ICP Metals list not previously listed).See DOE/RL-2000-16, Rev.2 (Remedial Design Report/Remedial Action Work Plan for the 100-NR-1 TSD units)	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	o Methods based approach is not used.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	o Filtered sampling is use instead of non-filtered per regulations.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	Repairs & replacement of monitoring wells is per ‘approved contractor procedures’ rather than WAC 173-160-. Any new wells need to be RCRA compliant wells.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• Inconsistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Needs to clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. The groundwater monitoring plan shall include a sampling and analysis plan (SAP) which will identify analytical methods and include descriptions of analytical procedures that will be followed for analyzing the 1301-N Unit-specific waste constituents and indicators. The SAP shall specify how all analytical data (i.e., detects, non-detects, tentatively identified compounds, etc.) as reported from the laboratory will be made available to Ecology.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The SAP required shall describe quality assurance/quality control (QA/QC) for sampling and laboratory analysis and will be consistent with consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]. SAPs will also be required to include the following: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
		§ Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in	

Commenter	Unit Group	Comment	Comment Response
		the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples;	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f). This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors;	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 1301-N permit.	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). No new permit condition is required. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the following water level measurements criteria. § Each time 1301-N Unit's groundwater monitoring wells are monitored, the ground water surface elevation shall be measured to the nearest 0.01 feet using an electric water level indicator prior to evacuation and collection of samples and immediately after samples are collected. § Water level measurements should be made within one day and as close to one another in time as possible. § All groundwater elevation measurements shall be recorded on a groundwater measurement form. § Prior to the collection of ground water elevation measurements, equipment to be used shall be calibrated in accordance with the manufacturer's instruction and a National Institute of Standards and Technology (NIST) traceable calibration program. § If steel tape equipment is used to measure ground water surface elevations, the operation of the equipment shall first be checked by inserting the probe or contact ends in water to ensure the contact is clearly indicated on the meter. § When ground water elevation measurements are collected, at least two consistent measurements shall be taken. Only clean and/or decontaminated equipment shall be used to collect ground water surface elevations. § A description of how the ground water surface elevation measurements will be taken. § Any corrections needed because a well(s) is not vertical shall be appropriately applied to correct for non-vertical wells.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the following groundwater monitoring well maintenance elements. § Each time 1301-N Unit wells are sampled/monitored; the condition of the wellhead and associated structure will be inspected and recorded. Problems with the pump or the sample (e.g., excessive turbidity) are also to be noted and the associated repairs are to be made within sixty (60) days according to approved contractor procedures. § Subsurface ground water monitoring well inspection and maintenance shall be performed on a 5-year schedule or as needed to repair problems identified during sampling. § In the event a ground water monitoring well becomes unsuitable for use, the status shall be documented and reported to Ecology within ninety (90) days of identifying the well as unsuitable for use. § In addition, the “unsuitable-for-use” well will be evaluated within thirty (30) days of the designation to determine if a new well should be constructed. A copy of the evaluation shall be provided to Ecology. If applicable, the “unsuitable-for-use” well shall be placed on a well decommissioning candidate list for Ecology’s approval. § In the event an “unsuitable-for-use” well must be replaced to satisfy this permit and WAC 173-303-645 (8) and (10) requirements, the Permittee shall provide a schedule for the replacement of the well. § Problems and/or damages will be noted in a log book. and noted in the well information database.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the following groundwater monitoring well purging elements. • The purge volume shall be calculated based on voiding three (3) borehole volumes of water from the well. The calculated purge volume shall be documented at the time of sampling. • During well purging, purgewater management will be conducted in accordance with a new “Condition II.F. for this Permit. Write a Part II. F. condition for management of purgewater. • The volume of water purged shall be documented after completion of purging. • Alternatively, if low-flow pumping is conducted for sample collection, the groundwater monitoring plan shall specify and describe the installation of low-flow pumps and include a description of the low-flow pumping routine that will be instituted for collecting groundwater samples.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the following groundwater monitoring in-situ measurements elements to be followed during well purging. § During well purging, at a minimum, the following in-situ criteria shall be measured and documented: temperature, pH, and conductivity. § Temperature, pH, and conductivity shall be obtained at least three times (start, middle, and end of designated purge time). § The in-situ readings shall stabilize prior to sampling and shall be considered “stable” when the following criteria are met: pH – two consecutive measurements are within 0.2 pH units, temperature – two consecutive measurements agree within 0.2 °C, and conductivity – two consecutive measurements agree within 10% of each other. § In addition to the collection of temperature, pH, and conductivity, in-situ turbidity measurements shall be collected.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the following groundwater monitoring in-situ measurements elements to be followed during well purging. During well purging, in-situ criteria turbidity readings shall be taken and documented. When possible, and when temperature, pH, and conductivity readings are “stable”, turbidity readings shall be below 5 nephelometric turbidity units (NTUs) prior to sample collection. In addition, two turbidity readings (duplicates) of the same water shall be taken and documented just prior to sampling.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall specify that if in-situ turbidity criteria are not met, two sets of samples for metals analysis shall be collected. One set of samples shall be filtered and the other set of samples shall not be filtered.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP required shall specify the order of filling sample containers and shall begin with volatile organics, semivolatile organics, metals, and end with radionuclides, as applicable.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be collected. At a minimum, the description shall include the following: the removal of bottle/container caps, the filling of the sample bottle/container (including description for filling bottles requiring zero headspace), replacement of bottle/container caps.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be filtered when in-situ turbidity readings criteria is not met.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall include an identification that immediately after filling the last sample container, the pH, temperature, and specific conductivity of groundwater will be measured and documented.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be managed to maintain chain of custody. At a minimum, the description shall include identification and/or a description of the system for: labeling samples, identifying samples, tracking samples, documenting chain of custody controls, etc.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall include a description of how the samples will be packaged and shipped. The description shall include a description of how the chain of custody will be maintained during packaging and shipping.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall include a description of decontamination of sampling equipment and/or bottles/containers used during collection of ground water samples and/or a description of the use of pre-cleaned bottles/containers.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan and/or the SAP shall specify how the requirements of WAC 173-303-645(10)(g) will be satisfied. If the groundwater monitoring plan does not satisfy the requirements of WAC 173-303-645(10)(g), the supporting information and justification must be provided in the groundwater monitoring plan as well as a description of how the intent of WAC 173-303-645(10)(g) may be satisfied (i.e., method-based analysis).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall specify how the rate and direction of groundwater flow in the uppermost aquifer will be determined on an annual basis as required by WAC 173-303-645(10)(e). In addition, the plan shall specify when and how the rate and direction of groundwater flow determinations required by WAC 173-303-645(10)(e) will be reported to Ecology on an annual basis.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall specify the rate of decline of the water table at the 1301-N Unit's point of compliance (as defined by WAC 173-303-645(6)) will be determined on an annual basis until such time as the decline associated with the 1301-N Unit's water table mounding (due to 1301-N Unit discharges) has ceased. In addition, the plan shall specify when and how the water table regression rate will be reported to Ecology on an annual basis until such time as the water table decline has ceased.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall include a plan for future use and/or remediation for all noncompliant wells in the vicinity of the 1301-N.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• Prior to any actions taken to deepen “dry” wells within the vicinity of the 1301-N Unit the Permittee shall submit a well deepening plan for Ecology approval that satisfies the groundwater protection standards of Chapter 173-160 WAC. The well deepening plan shall not be implemented until after the Permittee receives Ecology’s approval of the plan. For wells located downgradient to and in the immediate vicinity of the 1301-N Unit for which new information (i.e., inspection information, report of damage, indication during use, etc.) has been obtained via well maintenance activities, routine use, or incident reporting indicating the well is an environmental, safety, or public health hazard, the Permittees shall provide Ecology written notice of the conditions of the well. For such wells, the Permittees shall provide Ecology a description of actions to be taken which includes a schedule for well remediation or decommissioning. For such wells, the Permittees must obtain Ecology’s written approval to remediate or decommission the well.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• Prior to the installation of any additional wells to be used to satisfy WAC 173-303-645 groundwater monitoring requirements associated with the 1301-N Unit, the Permittee shall submit, for Ecology’s approval, a well installation plan that specifies the proposed location of well, well design, installation procedures, management of wastes generated during well installation, etc. The well installation plan shall satisfy Tri-Party Agreement Milestone M-24 requirements for decision documents and/or sampling and analysis plans.	All well installation plans are currently approved by Ecology. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• For wells located downgradient to and in the immediate vicinity of the 1301-N Unit for which new information (i.e., inspection information, report of damage, indication during use, etc.) has been obtained via well maintenance activities, routine use, or incident reporting indicating the well is an environmental, safety, or public health hazard, the Permittees shall provide Ecology written notice of the conditions of the well. For such wells, the Permittees shall provide Ecology a description of actions to be taken which includes a schedule for well remediation or decommissioning. For such wells, the Permittees must obtain Ecology's written approval to remediate or decommission the well.	Provisions as noted are already implemented. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• Five (5) years after the groundwater monitoring plan has been implemented, the Permittee shall submit a revised groundwater monitoring plan which specifies the 1301-N Unit's dangerous waste constituents to which the groundwater protection standards of WAC 173-303-645(3) apply.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall identify 1301-N Unit's waste constituents for which there has been evidence of an increase in contamination at the 1301-N Unit's compliance point. For 1301-N Unit's waste constituents that are required to be monitored as specified in this permit for which the Permittee proposes to exclude from meeting the groundwater protection standards of WAC 1730303-645(3), the Permittee must address considerations of WAC 173-303-645(4)(b)(i), (ii), and (iii).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall identify proposed 1301-N Unit's waste constituent concentration limits that satisfy WAC 173-303-645(5)(a)(i) or (ii).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The groundwater monitoring plan shall specify actions to be taken when proposed concentration limits have been exceeded which include 1) notification of the exceedance, and 2) submittal of an application for a permit modification to establish a corrective action groundwater monitoring program which satisfies WAC 173-303-645(11).	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• The Permittee shall implement the groundwater monitoring plan required by this Condition within forty-five (45) days of receiving Ecology's approval of the plan.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	• The groundwater monitoring plan shall specify when the three (3) additional groundwater monitoring wells will be installed at the 1301-N Unit's point of compliance (as defined by WAC 173-303-645(6)). The groundwater monitoring plan shall include:	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	• A schedule for submitting a well installation plan. 1. The groundwater monitoring plan shall also either identify that the proposed new wells will be administratively documented as needed and planned for installation through Tri-Party Agreement Milestone M-24 or specify the process to be followed to ensure installation of the wells on the identified schedule. The groundwater monitoring plan shall describe and/or specify river stage fluctuation influences on the water table in the vicinity of the 1301-N Unit. If river stage fluctuations affect the water table in the vicinity of the 1301-N Unit, the groundwater monitoring plan must include a description of how groundwater monitoring will be conducted to maximize the amount of groundwater (as opposed to river or surface water) being sampled.	US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. USDOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	8. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment). o Should also coordinate and incorporate requirements listed for the 300-FF-5 OU inspection requirements	The 1301-N and 1325-N units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Training requirements will not be required under the Dangerous Waste Regulations after clean closure. 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	Addendum E, provides the Security Requirements for operational facilities. As this unit is not operational provisions in the closure plan and conditions suffice as basic security requirements. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	Not accepted. Addendum F (Preparedness and Prevention) relate to operating units and not closure units.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum G will no longer be required. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	7. Addendum H: Statement that the Closure Plan presents the physical remedial activities and sampling and analysis required to comply with WAC 173-303-610 but there is no Closure Plan for public review included in Addendum H which meets these requirements. Addendum H text is outdated and incomplete and needs extensive revision. 1325-N and other discussion regarding 'Alternatives' should be deleted. o Modified Closure option discussed. This is not allowed per DW regulations.	An approved closure plan does exist and has been implemented. These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.

Commenter	Unit Group	Comment	Comment Response
		o Document cites use of Method C instead of Method B cleanup levels. (see Addendum H's closure selection menu and the allowance of MTCA Method C and "modified closure" provided by the undefined "PRES-6 and MCRIS-6" and "MCRIS-7" options. Neither "modified closure" nor MTCA Method C satisfy RCRA closure performance standards of WAC 173-303-610(2)). o Closure Schedule is old and non-compliant with closure requirements. o References an unavailable document which is to direct RCRA closure activities rather than permit conditions which require unit specific closure actions to be performed. Statement made that the Permit will need to be consistent with CERCLA remedial actions instead of direction to CERCLA as to what specific actions/ARARs are to be included in the ROD for these actions. o Incomplete list of constituents of concerns (COCs) and should include antimony, arsenic, barium, beryllium, boron, cadmium, carbon tetrachloride, gross alpha, gross beta, hydrazine, iron, lead, manganese, magnesium, nickel, nitrate, phosphates ruthenium-106, sulfate, tetrachloroethene, tin, tritium, uranium-235, vanadium, and zinc (and those from the expanded ICP Metals list not previously listed). o Sampling and analysis plan identified [DOE 2000a] should be included and sent out for public review. Document is currently not available; incorrect citation or reference to a non-existent document. o Statements made that verification sampling to determine MTCA compliance for direct soil contact will not be required is inconsistent with the requirements for RCRA closure. Statements made that ancillary equipment [i.e. piping] may be left in place is neither acceptable nor correct and must be removed/treated/disposed. Soils underneath piping must also be sampled in addition to being surveyed. o Reference is made to non-compliance with Land Disposal Restrictions. It must first be determined that the sites will need to closure under the Landfill regulations [WAC 173-303-665]. o Very old QA/QC documents instead of Ecology Publication # 04-03-030, Guidelines for Preparing Quality Assurance Plans for Environmental Studies.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	1301-N	8. Addendum I: Revise as indicated and also coordinate and incorporate requirements listed for the 100-NR-2 OU inspection requirements. Inspection Schedule for the 1301-N Ditch Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	These units meet the requirements under WAC 173-303 for closure without needing post-closure care (i.e., clean closure). Addendum K will no longer be required. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	Addendum J is reserved for operating units, and does not pertain to closure or post closure units. 1301-N was closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	1301-N	10. Addendum K: Identified as Recordkeeping and Reporting but draft permit identifies it as Appendix K-Post Closure Plan. o As a Post-Closure Plan, it discusses Modified Postclosure/Institutional Controls and Periodic Assessments and cites several non-existent Part II conditions. o Document refers and includes discussion of the 1325-N unit. o Postclosure groundwater monitoring program cited does not consistent with nor reflect use of alternative requirements. o Incorrect application of MTCA [173-340-410]. o Some of information within this document on personnel training, inspection, security, etc belongs in this draft permit's Addendums.	Addendum K was mislabeled. US DOE has been monitoring groundwater from the early 1990s to present day and no impacts to groundwater have occurred from dangerous waste constituents. US DOE conducted a full suite of analysis for dangerous waste constituents in December of 2016 with no detections in groundwater. No dangerous waste exists at these two TSD units that exceeds the MTCA Method B; thus meeting the default closure performance standards and allowing for "clean closure". A Groundwater Monitoring Plan will no longer be required under the Dangerous Waste Regulations after clean closure." 1301-N and 1325-N were closed out of the Hanford Site-wide Permit, Rev. 8C November 28, 2018.
Russell Jim	General	SEPA determination indicates continuing management of waste and clean closure and the permit indicates otherwise. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	The revised permit application will include a complete closure plan for the 241-CX tank system (tanks 241-CX-70, 241-CX-71, and 241-CX-72), at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). Ecology will further review SEPA requirements as applicable to the revised Hanford Dangerous Waste Permit application.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	The Rev 9A permit application includes a closure plan for the 241-CX tank system (tanks 241-CX-70, 241-CX-71, and 241-CX-72), at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for dangerous waste facilities) and WAC 173-303-640 (tank systems). As applicable, the level of detail required in a contingent closure plan and a contingent post-closure plan will meet the requirements of WAC 173-303-640(8)(c), and be submitted in the future.
Russell Jim	241-CX	2. No clarification of what dangerous waste constituents have been eliminated or what the DQO process is for the 200-IS-1 characterization since the units going to coordinate closure with this unit.	The Rev 9A permit application includes a closure plan for the 241-CX tank system (tanks 241-CX-70, 241-CX-71, and 241-CX-72), at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). The Permittees will close the 241-CX tank system according to an approved closure plan (including a sampling and analysis plan with the closure plan).
Russell Jim	241-CX	3. Confusing statements about not implementing Groundwater monitoring plans if they 'Clean Close' while text indicates Clean Closure is not possible due to placement of grout in tanks -71 & 72. Grout placement precludes clean decontamination.	The Rev 9A permit application includes a closure plan for the 241-CX tank system (tanks 241-CX-70, 241-CX-71, and 241-CX-72), at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). The Permittees will close the dangerous waste management unit according to an approved closure plan (including a sampling and analysis plan, as applicable to tanks 241-CX-70, -71, -72). The 241-CX closure unit is without secondary containment and at present does not require groundwater monitoring. WAC 173-303-640(8) requires a contingent closure and post-closure plan in place that includes provisions for complying with groundwater monitoring requirements of WAC 173-303-645 (Releases from regulated units).
Russell Jim	241-CX	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	The Hanford Federal Facility Agreement and Consent Order (HFFACO) Milestone M-037-10 requires the Permittees to submit a permit modification request for the 241-CX tank system (WAC 173-303-830(4)). The Coordinated Closure Plan share be submitted to Ecology within 270 days of the last Corrective Action Decision/Record of Decision for the 200-IS-1 Operable Unit , but no later than 9-30-2034. The Rev 9A permit application includes a closure plan for the 241-CX tank system, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems).

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	5. No list of other applicable laws discussed.	At a minimum, closure and post-closure care of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems).
Russell Jim	241-CX	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	241-CX	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). Specific closure performance standards per the Dangerous Waste Regulations (WAC 173-303-610) will be included in a revision to the closure plan. WAC 173-303-610(2), Closure Performance Standards, also includes cleanup requirements for the Model Toxics Control Act Regulations. For tank systems, closure and post-closure care requirements are included in WAC 173-303-840(8).
Russell Jim	241-CX	3. The use of the words ‘Ecology may accept’ does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don’t exist yet;	The Rev 9A permit application includes a closure plan for the 241-CX tank system per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-340 (tank systems). If applicable, CERCLA cleanup requirements are incorporated by reference in the closure plan, and closure will be completed to the approved closure plan.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	4. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303]. Reference to possible coordination of closure actions under non-existent CERCLA document actions [200-IS-1OU] does not meet the Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3).	The Rev 9A permit application includes a closure plan, and at a minimum, meet the closure and post-closure requirements of WAC 173-303-610 (including WAC 173-303-610(2) for closure performance standards), and WAC 173-303-640 (for tank systems), as applicable. If applicable, CERCLA cleanup requirements are incorporated by reference in 241-CX tank system closure plans, and closure will be completed to the approved closure plans.
Russell Jim	241-CX	5. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). Unit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	The Rev 9A permit application includes a closure plan, and at a minimum, meet the closure and post-closure requirements of WAC 173-303-610 (including WAC 173-303-610(2) for closure performance standards), and WAC 173-303-640 (for tank systems), as applicable. If applicable, CERCLA cleanup requirements are incorporated by reference in 241-CX tank system closure plans, and closure will be completed to the approved closure plans.
Russell Jim	241-CX	6. Estimated Annual Quantity of Wastes volumes presented as pounds. These figures seem inconsistent with stated facility design capacities. There is no differentiation between Dangerous Waste No and quantities of waste [everything lumped under one code #].	The Part A and fact sheet for 241-CX contains the information on waste quantities.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	7. Unit description text for tank -72 states there's insufficient waste characterization data. The permittee is required to identify all wastes per the Dangerous Waste Regulations of WAC 173-303 in the Part B application. The Part A identifies dangerous waste codes. This statement is either erroneous or the Part A should not have been approved or the Part B application should not have been accepted as complete. Ecology letter dated Nov. 10, 2004 to DOE regarding LDR Report Inspection of the 241 CX Tank System identified that substantial number of WAC 173-303 requirements had not been fulfilled. The letter called out waste characterizations and integrity assessments. There are no permit conditions identifying requirements to fulfill these requirements to be in compliance with Dangerous Waste regulations under WAC 173-303.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities), WAC 173-303-640 (tank systems), and WAC 173-303-140 (land disposal restrictions). Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of an appropriate MCTA cleanup method will depend on the specific cleanup actions required for the 241-CX tank system. Closure of tank 241-CX-72 may be coordinated with the CERCLA 200-IS 1 Operable Unit remedial investigation. Additional waste characterization will be completed for Tank 241-CX-72 as not all chemical constituents are known; final waste characterization results will be used to evaluate appropriate closure options for tank 241-CX-72.
Russell Jim	241-CX	1. V.15.B.1: Revise V.15.B.1 to state closure in accordance with Permit Condition V.15.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document ignores Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.15.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan, and at a minimum, meet the closure and post-closure requirements of WAC 173-303-610 (including WAC 173-303-610(2) for closure performance standards), and WAC 173-303-640 (for tank systems), as applicable. If applicable, CERCLA cleanup requirements are incorporated by reference in 241-CX tank system closure plans, and closure will be completed to the approved closure plans.
Russell Jim	241-CX	2. V.15.B.1.a: Questionable need for permit condition V.15.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	3. V.15.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	The Rev 9A permit application includes a closure plan for the 241-CX tank system, at a minimum, per the closure and post-closure care requirements of WAC 173-303-610, for all dangerous waste facilities, and WAC 173-303-640, tank systems. A schedule for closure is required in the written closure plan per WAC 173-303-610(3).
Russell Jim	241-CX	4. V.15.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the 241-CX tank system.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	5. V.15.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure care of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). Updated and complete addenda, as applicable to the 241-CX tank system, are included in the permit application.
Russell Jim	241-CX	6. V.15.B.8 & 9: While points on the SAP are acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure care of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). Updated and complete addenda, as applicable, are included in the permit application.

Commenter	Unit Group	Comment	Comment Response
		elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and,	

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		§ Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples;	

Commenter	Unit Group	Comment	Comment Response
		o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; • Illustrations of changes in concentration in relation to distance from the	

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		source, time, depth, or other parameters; • Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 241-CX permit.	
Russell Jim	241-CX	7. V.15.C.1: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	Any changes or "deviations" to a sampling and analysis plan will require a permit modification (per WAC 173-303-830, Permit Changes) and subsequent approval by Ecology.
Russell Jim	241-CX	8. V.15.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include this condition's information and other WAC 173-303-610(3) required information. See comments above.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure care of the 241-CX tank system will comply with WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems). Updated and complete addenda, as applicable, are included in the permit application.
Russell Jim	241-CX	9. No list of other applicable laws.	Closure of the 241-CX tank system will follow the closure plan and be compliant with the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities) and WAC 173-303-640 (tank systems).

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Russell Jim	241-CX	10. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding “double jeopardy” are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be “duplication of efforts” as two separate documents are not necessary.	Any required permit changes will be completed through an Ecology-approved permit modification process as described in WAC 173-303-830 (Permit Changes).
Russell Jim	241-CX	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	241-CX	1. Addendum B: Reserved but information should have been submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	The Rev 9A permit application includes a closure plan for the 241-CX tank system, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities), and WAC 173-303-640 (tank systems). As applicable to each tank comprising the 241-CX tank system (tanks 241-CX-70, 241-CX-71, 241-CX-72), an approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	241-CX	2. Addendum C: Reserved but information should have been submitted with application and should be included.	Addendum C, Process Information is “reserved” in the 241-CX tank system chapter conditions because it is not needed. The 241-CX tanks are not operational (due to past decommissioning activities in 1985 and 1986). Tanks 241-CX-71 and 241-CX-72 were grouted for stabilization. Tank 241-CX-70 contains waste residues. Waste transfer piping remains in place, but is physically isolated (pipe ends were permanently cut and sealed).

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Russell Jim	241-CX	3. Addendum D: Reserved but information should have been submitted with application and should be included.	Addendum D, Groundwater Monitoring Plan is "reserved" in chapter conditions because it is not needed. The Rev 9A permit application includes a closure plan, and at a minimum, meet the closure and post-closure requirements of WAC 173-303-610 and WAC 173-303-640, as applicable. The 241-CX tank system is without secondary containment and does not currently require groundwater monitoring. However, per WAC 173-303-640(8), the 241-CX tank system is required to have a contingent closure and post-closure plan that includes provisions for complying with the groundwater monitoring requirements of WAC 173-303-645 (Releases from Regulated Units).
Russell Jim	241-CX	4. Addendum E: Reserved but information should have been submitted with application and should be included. Required by WAC 173-303-310.	Addendum E, Security. The Rev 9A permit application includes a security plan.
Russell Jim	241-CX	5. Addendum F: Reserved but information should have been submitted with application and should be included. Required by WAC 173-303-640.	Addendum F, Preparedness and Prevention is included in the Rev 9A permit application.
Russell Jim	241-CX	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Also include training in following: • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	Addendum G, Personnel Training: The Rev 9A permit application includes a training plan.
Russell Jim	241-CX	7. Addendum H: Closure Plan: The following issues are noted and must be corrected to ensure compliance with the Dangerous Waste regulations: • DOE/RL-2008-51, REV. 1 has been previously approved by Ecology via a letter dated October 13, 2009. This action by Ecology violates DW regulations of WAC 173-303. By approval, Ecology also approved the SAP [DOE/RL-2002-14, Appendix C], which does not meet the WAC 173-303-300. These must go out for public review and subject to the WAC 173-303-830/840 modification process. • II.Y can't be used for TSD closure requirements.	The Rev 9A permit application includes a closure plan for the 241-CX tank system, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities), and WAC 173-303-640 (tank systems). As applicable to each tank comprising the 241-CX tank system (tanks 241-CX-70, 241-CX-71, 241-CX-72), an approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will

Commenter	Unit Group	Comment	Comment Response
		• 200-IS-1 OU: Document is not final; Ecology cannot rely on this document ensure compliance with closure requirements of WAC 173-303-640 or the cleanup of the piping and other ancillary equipment for this TSD unit. Ancillary equipment should include both the effluent and affluent piping from the point of exit from the non-RCRA facility to the TSD unit to the next non-RCRA facility. • Closure Plan: Pages beginning on 6.1 through till end of Closure Activities are not in compliance with the requirements of WAC -173-303-610 [e.g. "Sampling is intended to identify the tank waste characteristics in support of a tank disposition study that will help to identify a tank closure approach and to perform a waste designation on tank contents."] • Fig 6-1: does not include required soil sampling or verification sampling for piping or tank surfaces; Tank -72 pathway to closure is incorrect per WAC 173-303-640 regulations. • Section 7.2.1 Tank Closure Activities states Tanks 241-CX-70 and 241-CX-71 and all tank system piping are proposed to be clean closed by removal for disposal, as described in Section 7.1.3. Tanks 241-CX-70 and 241-CX-71 are planned to be removed without further characterization. The vent piping and risers from the buried tanks to the ground surface are integral portions of the tank and will be removed along with the tank. Tank 241-CX-70 is planned to be demolished in place and removed as contaminated debris. Tank 241-CX-71 currently is planned to be removed intact because this tank is relatively small and readily removable. However, if removal of the tank intact is not feasible, it could be demolished in place and removed as debris. These actions require demonstrations that Clean Closure is not attainable & Ecology decisions which have not yet been given. The Permittee must first attempt Clean Closure. • Clean Closure Levels for tank system COCs: Soil Concentrations protective of Groundwater values in Table 6-2: Chromium VI: 18.4 mg/kg used instead of .2mg/kg: Unclear where the 270mg/kg for Lead is derived from, why isn't the MCL of 15ug/l used as it is more protective? Ecological values are for only wildlife and don't include biota, etc. When did Ecology agree and how did Ecology agree to use industrial cleanup Method C for this site? [See comments from Ecology: Ecology's comments on the Response Action Report for 200-MG-1 Operable Unit Waste Site 600-26, DOE/RL-2010-66, Draft indicates disagreements with future land use designations. Ecology requested deletion of designation for future land	depend on specific cleanup requirements for the 241-CX tank system at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

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		use as 'conservation and mining' and use of 'unrestricted.' Ecology also requested reduction in the detection level for arsenic to 1 mg/kg (values of less than 1 mg/kg are achieved in the river corridor). Ecology rejected use of 18.4 mg/kg for soil pathway to groundwater for hexavalent chromium because it is not protective. Ecology requested ecological protection values be added to Table 2 and noted site as failing the 3-part and 2-part tests for hexavalent chromium.] These need to be changed to reflect unrestricted use cleanup levels. • Nothing in the WAC -610 or -640 regs which allow partial closure of a tank system as indicated with cleanup of ancillary facilities [piping, etc] for the 241-CX-72 tank and deferment of the tank closure. • DOE/RL-2002-14, Appendix C, states The SAP prepared for the 241 -CX-72 Storage Tank (Appendix C) has a limited scope and focuses on characterization of the waste remaining in the tank. Sampling of remaining waste will be conducted to determine the composition and concentrations of radionuclide and nonradionuclide constituents. A single borehole will be completed through the grout fill present in the tank and into the underlying residual waste material. Analytical results will be used in the assessment of the disposal options for the remaining waste, if removal of the tank is performed: This Sampling and Analysis Plan (SAP) directs the activities to be performed to characterize the waste contents within the Resource Conservation and Recovery Act of 1976 (RCRA) treatment, storage, and/or disposal (TSD) unit CX-241-72 Storage Tank in the 200-IS- I Operable Unit (OU). Characterization of the CX-24 1-72 tank contents is not a Phase 1 sampling activity associated with the pipeline systems. This sampling is being performed to gather data needed for evaluation of RCRA tank closure options [clean closure must first been attempted]. The sampling and analyses described in this document will provide data to characterize the waste contents within the 241 -CX -72 Storage Tank. See pages 1-25 & C1-1. The SAP is not consistent with the Dangerous Waste regulations.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	241-CX	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-BP-5 OU inspection requirements and also reflect the following . Inspection Schedule for the 241-CX Tank System Operable Unit Surveillance of the 241-CX Tank System Daily Surface Inspections Daily Security control devices: well caps, and locks Daily Well condition Daily Subsurface well condition 3 to 5 years	At a minimum, the Permittees will follow the requirements of Addendum I (Inspections) of the 241-CX tanks, and Permit Condition II.X, (Inspections) of the Hanford Dangerous Waste Permit. The Rev 9A permit application includes an inspection plan.
Russell Jim	241-CX	9. Addendum J: Reserved but information should have been submitted with application and should be included. Required by WAC 173-303-310.	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	General	SEPA: The DNS appears to be based on an old non-compliant GW monitoring plan for an interim status facility. All TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit. Ecology's priority and mission is to protect human health and the environment. We are working with USDOE to ensure all dangerous waste management units and unit groups manage the waste in a protective manner. Since the 2012 draft Site-wide Permit renewal, we've adopted the Tank Closure and Waste Management EIS and Ecology has updated the SEPA Determination and it is provided with the draft permit renewal. For more information, the SEPA Determination and Notice of Adoption is in accordance with WAC 197-11 and is available with the draft permit renewal.
Russell Jim	216-A-29	1. Statements inconsistent with data and lead the reader to believe there are no threats or potential threats [e.g. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater. See DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7; Table 6-1; DOE/RL-2005-63, Draft A, Pg. 2-35 & 2-88, Table 2-8; DOE/RL-2005-64, DRAFT A (Proposed Plan): Table 4; DOE/RL-2005-64, DRAFT B REISSUE (Proposed Plan):Pg 4; Table 1].	The information presented in the Fact Sheet for the 216-A-29 unit is from accepted (Administrative Record) Hanford Site documentation. The Fact Sheet is based on past and current scientific investigations, documented historical process knowledge, remedial investigations, and groundwater monitoring. The intent of the Fact Sheet is to provide a summary of the most current and accurate information available on a specific waste site.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	2. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a "contingent" closure plan. This "contingent" closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-A-29	3. Statements in Fact Sheet inconsistent with Permit conditions	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-A-29	4. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b)	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.
Russell Jim	216-A-29	5. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-29	6. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-A-29	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirement sat the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-29	3. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.

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Russell Jim	216-A-29	4. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-A-29	5. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). U nit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.
Russell Jim	216-A-29	1. V.11.B.1: Revise V.11.B.1 to state closure in accordance with Permit Condition V.11.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.11.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan (approved by Ecology). At a minimum, closure will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan.
Russell Jim	216-A-29	2. V.11.B.1.a: Questionable need for permit condition V.11.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.
Russell Jim	216-A-29	3. V.11.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for "alternative schedules of compliance," where appropriate.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	4. V.11.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the 216-A-29 Ditch.
Russell Jim	216-A-29	5. V.11.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The closure performance standards will be included in the next revision of the closure plan approved by Ecology, and added to the permit through the permit modification process.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	6. V.11.B.8 & 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and,	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
		§ A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and,	

Commenter	Unit Group	Comment	Comment Response
		§ Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f). This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record	

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		and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data	

Commenter	Unit Group	Comment	Comment Response
		will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-A-29 permit.	
Russell Jim	216-A-29	7. V.11.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-29	8. V.11.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-29	9. V.11.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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Russell Jim	216-A-29	10. V.11.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	Until the Permittees request the use of alternative groundwater monitoring requirements, Ecology is unable to make a final regulatory determination on the applicability of satisfying alternative standards. Through Ecology's review of the Model Toxics Control Act, WAC 173-340-410, Compliance Monitoring Requirements, it was determined this citation does not apply. Note: WAC 173-303-646(3) was changed to WAC 173-303-64630.
Russell Jim	216-A-29	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-29	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-A-29	1. Addendum B: Addendum H cites a Sampling and Analysis Plan outside the permit; regulations require inclusion of this within the permit while permit says “Reserved”. Revise Addendum B, Section B.7 Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. See above comments.	A Waste Analysis Plan (addendum B) is not required for closure units.
Russell Jim	216-A-29	2. Addendum C: Reserved but information was submitted with application and should be included.	The 216-A-29 unit is not operational. This unit does not require submittal of process information

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. D is a GW plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The GW plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. List of Contaminants of Concern is short and should also include the following. Rational provided: The permittee previously defined contamination at the 216-A-29 Ditch through remedial investigations (DOE/RL-2004-17, Draft A). The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituents. See DOE/RL-2004-17, Draft A (RI),Pg. ES-6, Table ES-2 & pg 6-8; Table 6-2,DOE/RL-2005-63, Draft A (FS) Pg. 2-35 & 2-88, & Tables 2-3, 2-8 • 1, 2-Dichloroethane. • Aroclor-1254. • Benzo (a) anthracene. • Benzo (a) pyrene. • Benzo(b)fluoranthene • Bismuth. • Cadmium. • Chrysene. • Tributyl phosphate. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater. See DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7; Table 6, DOE/RL-2005-63, Draft A, Pg. 2-35 & 2-88, Table 2-8, DOE/RL-2005-64, DRAFT A (Proposed Plan): Table 4, DOE/RL-2005-64, DRAFT B REISSUE (Proposed Plan):Pg 4; Table 1. • 1, 2-Dichloroethane. • Aroclor-1254.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
		• Arsenic. • Benzo (a) anthracene. • Bismuth. • Cadmium. • Chrysene. • Mercury. • Methylene chloride. • Nitrate. • Nitrate/nitrite. • Sulfate. • Tributyl phosphate. • Total Uranium • Tetrachloroethylene • Uranium The permittee previously found the following contaminants threatening ecological receptors through the soil pathway in DOE/RL-2004-17, Draft A and two others (DOE/RL-2005-63 and DOE/RL-2005-64, DRAFT B REISSUE. See DOE/RL 2004-17 DRAFT A, Pg 4-171, Table 4-33, DOE/RL-2005-63, DRAFT A: pg 2-88; Table 2-8, DOE/RL-2005-64, DRAFT B REISSUE:, Pg 4; Table 1, DOE/RL-2005-64, DRAFT A: Table 4). • 1, 2-Dichloroethane. • Acetone. • Aroclor-1254. • Arsenic • Bismuth. • Benzo (a) anthracene. • Benzo (b) fluoranthene. • Bis (2-ethylhexyl) phthalate. • Boron. • Butylbenzylphthalate. • Cadmium. • Chromium VI. • Chrysene. • Chloride. • Diethyphthalate. • Di-n-butylphthaltae. • Fluoranthene.	

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		• Lead. • Methylene chloride. • Molybdenum. • PCBs • Pyrene. • Selenium. • Silver. • Sulfate. • Tetrachloroethylene • TPH-kerosene range. • Tributyl phosphate • Uranium. • Vanadium. These studies reported radioactive radium, thorium, plutonium, cesium, total uranium (and daughter products), tritium, and others. They also reported the radioactive contaminants of potential ecological concern, neptunium-237 and antimony-125, plutonium-238, and thorium-230. See DOE/RL-2004-17, DRAFT A: pg 4-17 & Table 4-37, DOE/RL-2005-63, Draft A, Table 2-8. These should be included as indicators for tracking purposes only. It was noted that a "Methods based approach" is not used. Filtered sampling is use instead of non-filtered per regulations. Repairs and replacement of monitoring wells is not described. Repairs and replacement of monitoring wells must be in accordance with WAC 173-160-. Any new wells need to be RCRA compliant wells.	
Russell Jim	216-A-29	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	In 2021, Ecology granted the Permittees a waiver for the 216-A-29 Ditch. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.
Russell Jim	216-A-29	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the 216-A-29 Ditch does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-29	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-29	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-PO-1 OU inspection requirements. Inspection Schedule for the 216-A-29 Ditch Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3-5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-A-29	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	General	SEPA: The DNS appears to be based on an old non-compliant GW monitoring plan for an interim status facility. All TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	The information described will be submitted with the revised closure plan. The revised closure plan will be submitted per the permit condition for closure. Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	216-S-10	1. Statements inconsistent with data and lead the reader to believe there are no threats or potential threats yet data indicates differently.	The information presented in the Fact Sheet for the 216-S-10 P&D is from accepted (Administrative Record) Hanford Site documentation. The Fact Sheet is based on past and current scientific investigations, documented historical process knowledge, remedial investigations, and groundwater monitoring. The intent of the Fact Sheet is to provide a summary of the most current and accurate information available on a specific waste site.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure]. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't yet exist.	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a "contingent" closure plan. This "contingent" closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-S-10	2. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b).	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.
Russell Jim	216-S-10	3. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. · The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-S-10	4. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-S-10	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-S-10	3. The use of the words ‘Ecology may accept’ does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don’t exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	4. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-S-10	5. Nothing in permit identifying required clean closure of or excavation of near-surface soil and remove any associated pipelines or structures (ancillary equipment) [WAC 173-303-610].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-S-10	6. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). U nit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.
Russell Jim	216-S-10	7. Radionuclides are not regulated under Dangerous Waste Regulations at WAC 173-303. Instead they are regulated under CERCLA regulations at 40 CFR 300. However, Ecology should ensure that anticipated remedial actions for radioactive constituents shall be consistent with the closure activities required under WAC 173-303.	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-S-10	1. V.14.B.1: Revise V.14.B.1 to state closure in accordance with Permit Condition V.14.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.14.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	2. V.14.B.1.a: Questionable need for permit condition V.14.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.
Russell Jim	216-S-10	3. V.14.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for "alternative schedules of compliance," where appropriate.
Russell Jim	216-S-10	4. V.14.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	5. V.14.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The closure performance standards will be included in the next revision of the closure plan approved by Ecology, and added to the permit through the permit modification process.
Russell Jim	216-S-10	6. V.14.B.8 & 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
		Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures.	

Commenter	Unit Group	Comment	Comment Response
		§ Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent,	

Commenter	Unit Group	Comment	Comment Response
		to document and track data and results.[WAC 173-303-380(1)(f). This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters;	

Commenter	Unit Group	Comment	Comment Response
		§ Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-S-10 permit.	
Russell Jim	216-S-10	7. V.14.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.
Russell Jim	216-S-10	8. V.14.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.
Russell Jim	216-S-10	9. V.14.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	10. V.14.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	Until the Permittees request the use of alternative groundwater monitoring requirements, Ecology is unable to make a final regulatory determination on the applicability of satisfying alternative standards. Through Ecology's review of the Model Toxics Control Act, WAC 173-340-410, Compliance Monitoring Requirements, it was determined this citation does not apply. Note: WAC 173-303-646(3) was changed to WAC 173-303-64630.
Russell Jim	216-S-10	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-S-10	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-S-10	1. Addendum B: Addendum H cites a Sampling and Analysis Plan outside the permit; regulations require inclusion of this within the permit while permit says “Reserved”. Revise Addendum B, Section B.7 Quality Assurance/Quality Control as needed to ensure consistency with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites. See above comments.	A Waste Analysis Plan (addendum B) is not required for closure units.
Russell Jim	216-S-10	2. Addendum C: Reserved but information was submitted with application and should be included.	Addendum C, Process Information – Reserved: The 216-S-10 Pond & Ditch is not operational. This unit does not require submittal of process information.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. D is a GW plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The GW plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. The 200-UP-1 OU should be the groundwater operable unit for this permit. List of Contaminants of Concern (COC) is short and should also include the following: Rational provided: The permittee previously defined contamination at the 216-S-10 Pond & Ditch through remedial investigations (DOE/RL-2004-17, Draft A). The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituents. See DOE/RL-2004-17, Draft A (RI),Pg. ES-6, Table ES-2 & pg 6-8; Table 6-2; DOE/RL-2005-63, Draft A (FS) Pg. 2-35 & Tables 2-8. • Aroclor-1254. • Benzo (a) anthracene. • Benzo (a) pyrene. • Benzo(b)fluoranthene • Benzo(k)fluoranthene. • Bismuth. • Chrysene. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater and these should also be included on the COC list for sampling. See DOE/RL-2005-63, Draft A, Pg. 2-35 & 2-88, Table 2-8; DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7; Table 6-1; DOE/RL-2005-64, DRAFT B REISSUE: Pg 4; Table 1. • Aroclor-1254. • Arsenic. • Benzo (a) anthracene.	The Rev 9A permit includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
		• Benzo (a) pyrene. • Benzo(b)fluoranthene • Benzo(k)fluoranthene. • Bismuth. • Chromium (total). • Chrysene. • Mercury. • Methylene chloride. • Silver. • Vinyl chloride The permittee previously found the following contaminants (and these should also be included on the COC list) threatening ecological receptors through the soil pathway in DOE/RL-2004-17, Draft A and two others (DOE/RL-2005-63 and DOE/RL-2005-64, DRAFT B REISSUE. See DOE/RL-2004-17, DRAFT A: Pg 4-164, Table 4-30; DOE/RL-2005-63, DRAFT A: pg 2-35 & pg 2-89; Table 2-8; DOE/RL-2005-64, DRAFT B REISSUE: Pg 4; Table 1. • Acenaphthene. • Acetone. • Aroclor-1254. • Arsenic • Bismuth. • Benzo (a) anthracene. • Benzo (b) fluoranthene. • Benzo (ghi) perylene • Benzo (k) fluoranthene. • Bis (2-ethylhexyl) phthalate. • Boron. • Butylbenzylphthalate. • Carazole. • Chrysene. • Copper. • Cyanide • Dibenz [a,h] anthracene • Dibutylphthalate • Di-n-butylphthalate. • Di-n-butylphthaltae. • Fluoranthene.	

Commenter	Unit Group	Comment	Comment Response
		• Fluorene. • Hexavalent chromium. • Methylene chloride. • PCBs • Phenanthrene. • Pyrene. • Selenium. • Silver. • Sulfate. • Thallium. • Toluene. • Total chromium. • Vanadium. • Zinc. These studies reported radioactive americium, cesium, plutonium, radium, strontium, tritium, and others. They also reported the radioactive contaminants of potential ecological concern, carbon-14, thorium-228, and thorium-230. See DOE/RL-2004-17, DRAFT A, pg. 4-17 & Table 4-35. Previous groundwater monitoring detected constituents above background. The 200-CS-l feasibility study (DOEIRL-2005-63) also identified constituents with the potential to present a future concern. Recharge in the area of the 216-S-10 OU is estimated to be between 10-20 mm/y which is significantly less than the value promoted by Ecology (40-50mm/yr). Risk of infiltration and potential for vertical migration of contaminants to groundwater could easily be higher than anticipated. The “Methods based approach” is not used. Filtered sampling is use instead of non-filtered per regulations. Repairs & replacement of monitoring wells is not described. These actions should be in accordance with WAC 173-160. Any new wells need to be RCRA compliant wells.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310.	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.
Russell Jim	216-S-10	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340.	In 2021, Ecology granted the Permittees a waiver for the 216-A-29 Ditch. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the 216-A-29 Ditch does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-S-10	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-S-10	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-UP-1 OU inspection requirements. Inspection Schedule for the 216-S-10 Pond & Ditch Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-S-10	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	216-S-10	10. Addendum K: Missing	Addendum K, Post Closure is not included in the Rev 9A permit.
Russell Jim	General	SEPA: The DNS appears to be based on an old non-compliant GW monitoring plan for an interim status facility. All TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	216-A-37	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a “contingent” closure plan. This “contingent” closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-A-37	2. Statements in Fact Sheet inconsistent with Permit conditions	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-A-37	3. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b)	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Overall, permit conditions were written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-37	5. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-37	6. Fact sheet written as a permit rather than a Fact Sheet. Permit Fact Sheets formats are inconsistent with each other.	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-A-37	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Requirement of submittal of a Part A to correct errors after approval should have resulted in the denial of the permit application. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-37	3. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-A-37	4. No closure plan(s) in the new RCRA permit(s) although these were submitted. DOE submitted a Closure Plan for 216-A-371 Crib (DOE/RL-2005-88, Draft A) ; use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	5. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). Unit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.
Russell Jim	216-A-37	1. V.13.B.1: Revise V.13.B.1 to state closure in accordance with Permit Condition V.13.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.13.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers].	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-A-37	2. V.13.B.1.a: Questionable need for permit condition V.13.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.
Russell Jim	216-A-37	3. V.13.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for “alternative schedules of compliance,” where appropriate.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	4. V.13.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	5. V.13.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-37	6. V.13.B.8 & 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)]	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
		• Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;	

Commenter	Unit Group	Comment	Comment Response
		§ Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency;	

Commenter	Unit Group	Comment	Comment Response
		§ Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs,	

Commenter	Unit Group	Comment	Comment Response
		etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-A-37-1 permit.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	7. V.13.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-37	8. V.13.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-A-37	9. V.13.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	10. V.13.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-37	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-37	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-A-37	1. Addendum B: Reserved but information was submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	A waste analysis plan (addendum B) is not required for closure units.
Russell Jim	216-A-37	2. Addendum C: Reserved but information was submitted with application and should be included.	This unit is not operational. This unit does not require submittal of process information
Russell Jim	216-A-37	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. D is a GW plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The GW plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). The permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	The list of Contaminants of Concern is short and should also include the following. Rational provided: The permittee previously defined contamination at the 216-A-37-1Crib through remedial investigations (DOE/RL-2004-25, Draft A). The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituents. See DOE/RL-2004-25 DRAFT A (RI): Pg 3-19. • Nitrate. • Nitrate/nitrite. • Aluminum. • Halogenated solvents/Nonhalogenated solvents. • Manganese. • Thallium. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater. See DOE/RL-2004-25 DRAFT A: Pg 4-15 & Tables 4-8 & 4-11 & 6-1, DOE/RL-2000-60, Rev.1 (Work plan & SAP for PW 2/4): Pgs. 2-46 & 3-11, DOE/RL-2004-85 DRAFT A (feasibility study): Pg. D-47-Table D-14 & Pg. 2-61& E-1. These reports also indicated the crib impacted groundwater, and therefore must comply with WAC 173-303-645 for releases from regulated units. • Aluminum. • Cobalt. • Halogenated solvents/Nonhalogenated solvents. • Manganese. • Nitrate and Nitrate/nitrite-N. • Thallium. • Thorium. • Tributylphosphate. • Uranium. The permittee previously found the following contaminants threatening ecological receptors through the soil pathway in DOE/RL-2004-25, DRAFT A (RI report): Pg 4-34, Tables 4-30 & 4-36 & 6-1, DOE/RL-2004-85 DRAFT A: Pg. E-1 & D-3-Table D-12. • Acetone. • Ammonia. • Barium.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
		• Bis (2-ethylhexyl) phthalate. • Boron. • Halogenated solvents/Nonhalogenated solvents. • Nitrate. • Nitrite. • Thorium. • Tributylphosphate. This study (DOE/RL-2004-25 DRAFT A: Pg 4-34) also reported radioactive actinium-228, bismuth-212/214, lead-212/214, and thallium-208 as exceeding ecological screening levels. See DOE/RL-2004-25 DRAFT A: Pg 4-34. Groundwater monitoring results reported in DOE/RL-2004-25, DRAFT A and PNNL-13788 (DOE/RL-2000-60, Rev.1) also identified radiological contaminants that have impacted groundwater (tritium and Iodine-129). See DOE/RL-2004-25, DRAFT A: Table 6-1 and DOE/RL-2000-60, Rev.1: Pg. 3-11. Furthermore, Groundwater monitoring results reported in PNNL-15070 identified the following radiological constituents (some noted as exceeding groundwater protection standards). Some of these were also noted in noted in the closure plan (DOE/RL-2005-88 DRAFT A, PG 5.5) submitted previously: • Total plutonium. • Gross alpha. • Gross beta. • Americium-241. • Strontium-90. • Tritium. Geophysical logging for the 216-A-37-1 crib (CP-18666) also detected cesium-137 that exceeded groundwater protection standards. All radiological constituents should be included as indicators for tracking purposes only. It is unclear if a “Method based” approach is used. Unfiltered sampling is called for in SAP [a good thing] but it is unclear in the GW monitoring plan if exactly which COCs will be sampled. Repairs & replacement of monitoring wells is not described. These actions must be in accordance with WAC 173-160-. Any new wells need to be RCRA compliant wells.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.
Russell Jim	216-A-37	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	In 2021, Ecology granted the Permittees a waiver for the 216-A-29 Ditch. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the 216-A-29 Ditch does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-A-37	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-37	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-PO-1 OU inspection requirements. Inspection Schedule for the 216-A-37-1 Crib Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-A-37	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610.	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	General	SEPA: The DNS appears to be based on an old non-compliant GW monitoring plan for an interim status facility. All TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	216-A-36B	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a “contingent” closure plan. This “contingent” closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-A-36B	2. Statements in Fact Sheet inconsistent with Permit conditions	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-A-36B	3. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b)	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Overall, permit conditions were written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-36B	5. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-36B	6. Fact sheet written as a permit rather than a Fact Sheet. Permit Fact Sheets formats are inconsistent with each other.	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-A-36B	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Requirement of submittal of a Part A to correct errors after approval should have resulted in the denial of the permit application. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-36B	3. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-A-36B	4. No closure plan(s) in the new RCRA permit(s) although they were submitted. DOE submitted a Closure plan for the 216-A-36B crib (DOE/RL-2005-88, Draft A.; use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	5. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). Unit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.
Russell Jim	216-A-36B	1. V.12.B.1: Revise V.12.B.1 to state closure in accordance with Permit Condition V.12.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.12.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-A-36B	2. V.12.B.1.a: Questionable need for permit condition V.12.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.
Russell Jim	216-A-36B	3. V.12.B.2: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for "alternative schedules of compliance," where appropriate.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	4. V.12.B.3 & 4: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	5. V.12.B.5 & 6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-36B	6. V.12.B.8 & 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)]	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

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		• Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and, § A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;	

Commenter	Unit Group	Comment	Comment Response
		§ Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and, § Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency;	

Commenter	Unit Group	Comment	Comment Response
		§ Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs,	

Commenter	Unit Group	Comment	Comment Response
		etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-A-36B permit.	

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	7. V.12.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-36B	8. V.12.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-A-36B	9. V.12.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	10. V.12.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-A-36B	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-A-36B	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-A-36B	1. Addendum B: Reserved but information was submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	A waste analysis plan (addendum B) is not required for closure units.
Russell Jim	216-A-36B	2. Addendum C: Reserved but information was submitted with application and should be included.	This unit is not operational. This unit does not require submittal of process information
Russell Jim	216-A-36B	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. Addendum D is a Groundwater monitoring plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The Groundwater plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). The permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	The list of Contaminants of Concern is short and should also include the following. Rational provided: The permittee previously defined contamination at the 216-A-36B Crib through remedial investigations (DOE/RL-2004-25, Draft A). The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituents. See DOE/RL-2004-25 DRAFT A (RI): Pg 3-16. • Bismuth. • Nitrate as nitrogen. • Nitrite as nitrogen. • Nitrate and nitrate/nitrite as nitrogen. • Total uranium. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater. See DOE/RL-2004-25 DRAFT A : Pg 4-15 -16 & Tables 4-8 & 4-11 & 6-1 ; DOE/RL-2000-60, Rev.1: Pg. 3-11; DOE/RL-2004-85 DRAFT A (feasibility study): Pg. D-46-Table D-14 & Pg. 2-61/62& E-1.These reports also indicated the crib impacted groundwater and is subject to WAC 173-303-645. • Bismuth. • Gross beta. • Iodine-129. • Isophorone. • Nitrate and Nitrate/nitrite N. • Strontium-90. • Technecium-99. • Thorium. • Total Uranium. • Tritium. The permittee previously found the following contaminants threatening ecological receptors through the soil pathway in DOE/RL-2004-25, DRAFT A (RI report): Pg 4-34-35, Tables 4-29 & 6-1; DOE/RL-2004-85 DRAFT A: Pg. E-1 & D-29-Table D-12. • Silver • Isophorone. • Thorium. • Actinium-228.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

Commenter	Unit Group	Comment	Comment Response
		• Bismuth-212. • Lead-212/214. • Thallium-208. Furthermore, Groundwater monitoring results reported in PNNL-13788 (DOE/RL-2000-60, Rev.1) reported radiological contaminations that exceed groundwater protection standards. These included gross beta, iodine-129, strontium-90, and tritium. See DOE/RL-2000-60 REV 1: Work plan & SAP for PW 2/4: Pg 3-11. High levels of plutonium-239/240 and americium -241 in waste sample B17487 suggest some of the soil in this crib may be transuranic waste. See DOE/RL-2004-25 DRAFT A: Pg. 3-16. All radiological constituents should be included as indicators for tracking purposes only. A "Method based" approach is not used. Unfiltered sampling is called for in SAP [a good thing] but it is unclear in the GW monitoring plan if exactly which COCs will be sampled. Repairs & replacement of monitoring wells is not described. These actions must be in accordance with WAC 173-160. Any new wells need to be RCRA compliant wells.	
Russell Jim	216-A-36B	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.
Russell Jim	216-A-36B	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	In 2021, Ecology granted the Permittees a waiver for the 216-A-29 Ditch. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the 216-A-29 Ditch does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-A-36B	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-A-36B	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-PO-1 OU inspection requirements. Inspection Schedule for the 216-A-36B Crib Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-A-36B	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610.	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	General	SEPA: TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	216-B-63	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure].	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a “contingent” closure plan. This “contingent” closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-B-63	2. Statements in Fact Sheet inconsistent with Permit conditions	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-B-63	3. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b)	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-63	4. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements	Overall, permit conditions were written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-63	5. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-63	6. Fact sheet written as a permit rather than a Fact Sheet. Permit Fact Sheets formats are inconsistent with each other.	A complete review and comparison of fact sheets to permit conditions has been completed for Rev 9A.
Russell Jim	216-B-63	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Requirement of submittal of a Part A to correct errors after approval should have resulted in the denial of the permit application. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-63	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-B-63	3. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-63	4. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-63	5. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). Unit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-63	1. V.21.B.1: Revise V.21.B.1 to state closure in accordance with Permit Condition V.21.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.21.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-B-63	2. V.21.B.2: Questionable need for permit condition V.21.B.1.a. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.
Russell Jim	216-B-63	3. V.21.B.3: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for "alternative schedules of compliance," where appropriate.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-63	4. V.21.B.4 & 5: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.
Russell Jim	216-B-63	5. V.21.B.6 & 7: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-63	6. V.21.B.8 & 9& 10: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and,	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

Commenter	Unit Group	Comment	Comment Response
		§ A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and,	

Commenter	Unit Group	Comment	Comment Response
		§ Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f)]. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used	

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		to record and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data	

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		will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-B-63 permit.	
Russell Jim	216-B-63	7. V.21.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-B-63	8. V.21.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-63	9. V.21.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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Russell Jim	216-B-63	10. V.21.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-B-63	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-63	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

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Russell Jim	216-B-63	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-B-63	1. Addendum B: Reserved but information was submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	A waste analysis plan (addendum B) is not required for closure units.
Russell Jim	216-B-63	2. Addendum C: Reserved but information was submitted with application and should be included.	The 216-B-63 unit is not operational. This unit does not require submittal of process information.
Russell Jim	216-B-63	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. D is a GW plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The GW plan is not consistent with the DW regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). The permit must clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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Russell Jim	216-B-63	The list of Contaminants of Concern is short and should also include the following. Rational provided: The permittee previously defined contamination at the 216-B-63 Trench during the 200-CS-1 feasibility study (DOE/RL-2005-63, Draft A); the permittee further defined contamination at the 216-B-63 Trench. See DOE/RL-2005-63, Draft A, Pg. 2-35 & Tables 2-3, 2-8. The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituent: • Bismuth. The permittee also identified the following chemicals as threats or potential threats to human health through the pathway of soil to groundwater. See DOE/RL-2004-17, Draft A, Pg. ES-5, Table ES-1 & pg 6-7; Table 6-1; DOE/RL-2005-63, Draft A, Pg. 2-35 & 2-88, Table 2-8; DOE/RL-2005-64, DRAFT B REISSUE: Pg 4; Table 1. • Aroclor-1260. • Benzene. • Bismuth. • Cadmium. • Methylene chloride. • Nitrate. • Nitrate/nitrite. The permittee previously found the following contaminants threatening ecological receptors through the soil pathway in DOE/RL 2004-17 DRAFT A, Pg 4-169, Table 4-32; DOE/RL-2005-63, DRAFT A: pg 2-88; Table 2-8; DOE/RL-2005-64, DRAFT B REISSUE: Pg 4; Table 1. • Acetone. • Antimony. • Aroclor-1260. • Bis (2-ethylhexyl) phthalate. • Boron. • Methylene chloride. • Selenium. • Sulfide. • Toluene. • Vanadium. This study (DOE/RL-2004-17, DRAFT A: pg 4-17 & Table 4-36) also reported radioactive cesium, neptunium, strontium, thorium, and others. It also	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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		reported potential ecological concern, neptunium-237, thorium-230, and total radioactive strontium. All radiological constituents should be included as indicators for tracking purposes only. It is unclear if a “Method based” approach is used. Unfiltered sampling is called for in SAP [a good thing] but it is unclear in the GW monitoring plan if exactly which COCs will be sampled. Repairs & replacement of monitoring wells is not described. These actions must be in accordance with WAC 173-160-. Any new wells need to be RCRA compliant wells. GW Plan seems to indicate more upgradient wells being sampled than what the SAP indicates; there seems to be some inconsistencies.	
Russell Jim	216-B-63	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.
Russell Jim	216-B-63	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340	In 2021, Ecology granted the Permittees a waiver for the 216-A-29 Ditch. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.

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Russell Jim	216-B-63	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the 216-A-29 Ditch does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-B-63	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

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Russell Jim	216-B-63	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-PO-1 OU inspection requirements. Inspection Schedule for the 216-B-63-Trench Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-B-63	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610.	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Russell Jim	General	SEPA: All TSD units are subject to final status regulations on the Hanford site. Indication of submittal of a required closure plan under M-037-11 does not meet WAC 173-303-610(3) regulation. It is a milestone for completion of closure work, not submission of a closure plan. The determination should be a MDNS at the minimum and permit conditions written to reflect mitigation.	Submittal of closure plans is required under M-037-02 and M-037-03 milestones, not M-037-11. Ecology notified the public of the intent to issue a revised draft (second draft) dangerous waste permit. Ecology has issued a notice of withdrawal for the DNS issued for the first draft dangerous waste permit. Ecology will be issuing a new SEPA determination for the second draft dangerous waste permit.
Russell Jim	216-B-3	1. Statements in the Fact Sheet inconsistent with the Dangerous Waste Regulations WAC 173-303-610 requirements for closure details to be in the permit [e.g. contingency plans are a requirement of closure]. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't yet exist.	A contingency plan is not a requirement under 173-303-610, Closure and Post-closure. WAC 173-303-610(3)(a) requires the submittal of a "contingent" closure plan. This "contingent" closure plan may be a part of the closure plan. The currently accepted regulatory path for RCRA and CERCLA integration requirements is defined by the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5. Also, WAC 173-303-610(1)(e) states that alternative requirements may be used by Ecology if the alternative requirements demonstrate protectiveness for human health and the environment.
Russell Jim	216-B-3	2. Incorrect use of Wavier [variance] to closure regulations (WAC 173-303-610(4)(b).	Ecology recognizes that closure of this unit has exceeded the required time limit in WAC 173-303-610(4)(b), which is why milestones have been created in the HFACCO Action Plan.

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Russell Jim	216-B-3	3. Basis for permit conditions rather than identified as requirements under the Dangerous Waste regulations is incorrectly stated as coming from CERCLA & TPA Milestone requirements.	Overall, permit conditions were written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-3	4. No list of other applicable laws discussed.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-3	1. All required information to write a Permit should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums. PPC 9524.1984(01) COMPLIANCE SCHEDULES IN RCRA PERMITS OCT 5 1984, an EPA memorandum on compliance schedules, states a compliance schedule cannot be used to allow a facility additional time to provide Part B application information after the permit is issued.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.

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Russell Jim	216-B-3	2. No Performance Standards included in permit. Required by WAC 173-303-283.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-B-3	3. The use of the words 'Ecology may accept' does not meet the requirements to have closure details, etc in the permit, there is no defined regulatory authority/pathway to do this, as stated, permit does not comply with DW Closure WAC 173-303-610 requirements; prospective agreement of acceptance of CERCLA work meeting RCRA closure requirements; CERCLA documents don't exist yet;	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-3	4. No closure plan(s) in the new RCRA permit(s); use of the Corrective Action/Record of Decision (CAD/ROD) approach to integrate Treatment Storage and Disposal Facility (TSD) closure with CERCLA for the Central Plateau TSD units and delay of development of closure plan/contingency plans/post-closure plans until after remedy selections does not ensure compliance with the Dangerous Waste Regulations [WAC 173-303].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-3	5. Nothing in permit identifying required clean closure of or excavation of near-surface soil and remove any associated pipelines or structures (ancillary equipment) [WAC 173-303-610].	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.

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Russell Jim	216-B-3	6. Edit all hyper-links to include entire citation referenced (e.g. WAC 173-303-815(2)(b)(i)] is hyper-linked and not the necessary (2) portion). U nit Description implying closure actions to be done under a CERCLA work plan authority rather than the RCRA permit.	It is not clear which permit section is referred to in this comment. If referencing permit condition V.11.B.1.a, the hyperlink for WAC 173-303-815(2)(b)(i) shows this citation is derived from WAC 173-303-815(2), Establishing Permit Conditions. Unit Description: Closure of this unit will involve RCRA and CERCLA regulatory coordination.
Russell Jim	216-B-3	7. Radionuclides are not regulated under Dangerous Waste Regulations at WAC 173-303. Instead they are regulated under CERCLA regulations at 40 CFR 300. However, Ecology should ensure that anticipated remedial actions for radioactive constituents shall be consistent with the closure activities required under WAC 173-303.	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-B-3	1. V.22.B.1: Revise V.22.B.1 to state closure in accordance with Permit Condition V.22.A. Revise all permit conditions and Addenda to include the required information according to WAC 173-303-806 & -610. Reference to closure actions under non-existent CERCLA document violates Dangerous Waste closure regulation requirements to have these details in an approved Closure Plan. Required by WAC 173-303-610(3). Delete current V.22.B.1: Conditions for submittal of documents which were or should have been included in the Permit Application in accordance with DW closure requirements. Additionally, as required by WAC 173-303-806 & -610, Closure plans must include details of actions [e.g. complete designs of landfill covers]. Furthermore, the Permittees aren't the ones who have made the determination that the unit can't meet clean closure standards, Ecology makes permitting decisions	The Rev 9A permit application includes a closure plan. At a minimum, closure of will be completed per the requirements of WAC 173-303-610, Closure and Post-closure, and WAC 173-303-610(3) Closure plan; Amendment of Plan, which requires a written closure plan. Closure will be completed according to the approved closure plan. An accepted regulatory path for RCRA and CERCLA integration requirements is defined in the Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan, Section 5.5.
Russell Jim	216-B-3	2. V.22.B.2: Questionable need for permit condition V.22..B.2. – requirement for a cultural and biological report. When the SEPA checklist was submitted with the permit application, this should have been a part of the submittal. If not, Ecology should have indicated so in their decision and called out a MDNS. Delete condition and revise SEPA determination. Include mitigations within Permit conditions.	This condition has been deleted.

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Russell Jim	216-B-3	3. V.22.B.3: Permit lacks a compliance schedule in accordance with -610 closure regulations. Incorrect application of WAC 173-303-815(3)(b) compliance schedules; see General Comment #1 above.	This condition has been deleted. However, WAC 173-303-815(3)(b) allows for "alternative schedules of compliance," where appropriate.
Russell Jim	216-B-3	4. V.22.B. 4& 5: No Performance Standards included in permit. Required by WAC 173-303-283. Revise as follows: Closure of a RCRA TSD facility is described in these Dangerous Waste Regulations under WAC 173-303-610. WAC 173-303-610(2)(b)(i) requires for soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations (MTCA), chapter 173-340 WAC, as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate (industrial use land). To ensure compliance with the Dangerous Waste Regulations, include the following closure performance standards for contaminated soils: • Closure performance standards for soils will satisfy the most stringent (lowest) of: [WAC 173-303-610(3)(a)(v)] • Direct contact consistent with WAC 173-340-900 (Table 745-1), • Soil concentrations to protect groundwater: derived using WAC 173-340-747(4), • Protection of ecological receptors achieved through one of the following methods: 1. Excavation of contaminated soil to a minimum of 15 feet below ground surface, or 2. Excavation of contaminated soil such that residual soil concentrations do not exceed ecological screening levels listed in WAC 173-340-900 (Table 749-1), or 3. A site-specific demonstration that remedial standards eliminate threats to ecological receptors.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.
Russell Jim	216-B-3	5. V.22.B. 6 & 7& 8: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update the Addenda to ensure compliance.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

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Russell Jim	216-B-3	6. V.22.B. 9: While acceptable, they are incomplete and should be included in the permit per the requirements of WAC 173-303-610 as a part of the required Closure Plan. In addition, include the following as required in the Sampling and Analysis Plan (SAP), to be located in Addendum B and ensure consistency with Ecology Publication #09-05-007 [Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites]: • Documentation of the necessary quantity and quality of data for each decision for which sampling and analysis may be required pursuant to conditions of this Chapter. [WAC 173-303-300(1)] • The parameters for which each environmental media sample will be analyzed and the rationale for selecting these parameters and the frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current. [WAC 173-303-300(5)(a)] • Procedures for how non-detects, and any tentatively identified compounds which may be reported with laboratory analytical results will be assessed and/or used for decision-making purposes, and to identify any contaminants in addition to those already identified for which establishment of closure performance standards may be warranted. [WAC 173-303-300(5)(a)] • Analytical methods, including field measurements, which will be used for analysis of environmental media samples. [WAC 173-303-300(5)(b)] • Methods of obtaining representative samples of soils for all sampling and analysis which may be required pursuant to WAC 173-303-110 requirements and consistent with the requirements specified in WAC 173-340-810 and WAC 173-340-820. [WAC 173-303-300(5)(c)] • A quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. Each QA/QC plan shall include, or contain a reference to another document, which will be used and includes, the elements as defined. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following: § Data Collection Strategy section including, but not limited to, the following: § A description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses; and,	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.

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		§ A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; § Sampling section which shall include or describe, and reference or cite: § Criteria for selecting appropriate sampling locations, depths, etc., or identification and justification of sample collection; § Sampling methods including the identification of sampling equipment and a description of decontamination procedures to be used; § Criteria for providing a statistically sufficient number of samples as defined in EPA guidance, or criteria for determining a technically sufficient number of measurements to meet the needs of the project as determined through the Data Quality Objective (DQO) planning process; § Methods for, or specification of, measuring all necessary ancillary data; § Criteria for establishing, or specification of, which parameters are to be measured at each sample collection point, and the frequency that each parameter is to be measured; § Criteria for, or specification of, identifying the type of sampling (e.g., discrete), and number of samples to be collected; § Criteria for, or specification of, measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points; § Methods and documentation of field sampling operations and procedure descriptions, as appropriate, including: § Procedure descriptions and forms for recording the exact location, sampling conditions, sampling equipment, and visual condition of samples; § Calibration of field devices (as applicable); § Collection of replicate samples; § Submission of field-biased blanks, where appropriate; § Potential interferences present at the facility; § Field equipment listing and sample containers; § Sampling order; and, § Descriptions of decontamination procedures. § Selection of appropriate sample containers, as applicable; § Sample preservation methods, as applicable; and, § Chain-of-custody procedure descriptions as applicable, including: § Standardized field tracking reporting forms to establish sample custody in the field prior to, and during shipment; and,	

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		§ Pre-prepared sample labels containing all information necessary for effective sample tracking, except where such information is generated in the field, in which case, blank spaces shall be provided on the pre-prepared sampling label. § Certification that all samples obtained for analysis will be delivered to a responsible person, at the recipient laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records; § Provision for a laboratory sample custody log; and, § Specification of chain-of-custody procedures for sample handling, storage, and disbursement for analysis. § Sample storage procedure descriptions and storage times; § Sample preparation methods; § Descriptions of analytical procedures, including: § Scope and application of the procedure; § Sample matrix; § Potential interferences; § Precision and accuracy of the methodology; and, § Method detection limits. § Descriptions of calibration procedures and frequency; § Data reduction, validation, and reporting; § Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, include: § Method blank(s); § Laboratory control sample(s); § Calibration check sample(s); § Replicate sample(s); § Matrix-spiked sample(s); § “Blind” quality control; § Control charts; § Surrogate samples; o Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and track data and results.[WAC 173-303-380(1)(f). This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record	

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		and, for projects, present the validated and invalidated data and conclusions. o The Data Management Plan shall include the following as applicable: § A data record including the following: § Unique sample or field measurement code; § Sampling or field measurement location including surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type; § Sampling or field measurement raw data; § Laboratory analysis identification (ID) number; § Result of analysis (e.g., concentration); § Tabular displays, as appropriate, illustrating: § Unsorted validated and invalidated data; § Results for each medium and each constituent monitored; § Data reduction for statistical analysis; § Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and, § Summary data. § Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the following: § Displays of sampling location and sampling grid; § Identification of boundaries of sampling area and areas where more data is required; § Displays of concentrations of contamination at each sampling location; § Displays of geographical extent of contamination; § Aerial and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility; § Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters; § Identification of features affecting intramedia transport and identification of potential receptors; • All data obtained pursuant to this Permit should be made available to Ecology within forty-five (45) days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If Ecology agrees that data	

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		will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within forty-five (45) days of first availability, along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify Ecology within thirty (30) days with an explanation and revision, if applicable. A new permit condition should be written to ensure this notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to the 216-B-3 permit.	
Russell Jim	216-B-3	7. V.22.C: Delete: To ensure compliance with the Dangerous Waste Regulations, WAC 173-303-610(3) requires this information to be in the issued Permit. Update Addendum H to include this information.	The Rev 9A permit application includes a closure plan. At a minimum, closure and post-closure will comply with WAC 173-303-610 (for all dangerous waste facilities). The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Selection of appropriate MCTA cleanup methods will be dependent on the specific cleanup actions required for the unit.
Russell Jim	216-B-3	8. V.22.D: To ensure compliance with the Dangerous Waste Regulations, update Permit Addenda B & H to include WAC 173-303-610(3) required information. See comments above.	The permit application (Rev 9A) includes a coordinated closure plan. Revision two of the closure plan will integrate the RCRA and CERCLA documents to ensure compliance with the Dangerous Waste Regulations, WAC-173-303-610.
Russell Jim	216-B-3	9. V.22.E.1: Use of an 'Interim Status GW Monitoring plan". All units on the Hanford site are final status.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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Russell Jim	216-B-3	10. V.22.E.2: Ecology must first determine whether use of Alternative Standard for groundwater monitoring is applicable and meets the needed criteria. Until such time that Ecology has made the determination that STOMP-1D is a validated model per criteria in the Dangerous Waste Regulations, the Ecology is required to incorporate unit specific permits groundwater monitoring into the RCRA Permit in compliance with WAC 173-303-610(2)(b)(i) requirements. Furthermore, there is an incorrect application of MTCA [173-340-410]. If alternative requirements are to be applied, then an enforceable action issued pursuant to MTCA must be done and Ecology is required to incorporate these into the permit at the time of permit issuance [WAC 173-303-646(3)(b) & (c)]. This has not been done.	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610. An approved sampling and analysis plan will be included in a revision to the closure plan. CERCLA cleanup requirements, those requirements will be incorporated by reference in the closure plan, and closure completed according to the approved (closure) plan. The level of detail required for closure planning (including contingent closure and contingent post closure plans, as required) will depend on specific cleanup requirements at the time of closure. For MTCA, selection of an appropriate MCTA cleanup method will depend on specific cleanup actions required. Closure performance standards for soils will satisfy the most stringent (lowest) cleanup level or standard of WAC 173-340, Model Toxics Control Act (MTCA) Cleanup Regulation. The numeric cleanup levels for soils will be calculated according to the MTCA cleanup methods described in WAC 173-340-700 through WAC 173-340-760. Any required permit changes (including changes to a sampling and analysis plan) will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.
Russell Jim	216-B-3	11. No list of other applicable laws.	Overall, permit conditions are written for compliance with Chapter 173-303 WAC, Dangerous Waste Regulations. Specifically, Ecology is also authorized for all aspects of the federal hazardous waste program applicable to Hanford, including EPA's regulations for facilities managing hazardous waste. The HFFACO is an agreement which is used to achieve compliance with CERCLA remedial action provisions, and RCRA TSD (treatment, storage, and disposal) regulations and corrective action provisions. The HFFACO is legally binding - and the HFFACO Milestones indicate the intent to comply with RCRA and Washington State's equivalent regulations.
Russell Jim	216-B-3	12. Difficult to track permitting actions in referenced rather than attached/include documents. A matrix approach whereas the applicable sections of the CERCLA documents are directly included in the permit is more transparent and publicly accessible. Concerns regarding "double jeopardy" are eliminated by including only those sections of the CERCLA documents needed to fulfill RCRA DW permitting requirements and modification process. CERCLA documents could contain a table of contents identifying these area and/or separate chapters for the permit requirements. This would also not be "duplication of efforts" as two separate documents are not necessary.	There may be occasions in which we will reference external documents in the permit conditions or in permit documents. The II.Y permit conditions address instances in which there are RCRA and CERCLA requirements.

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Russell Jim	216-B-3	Addenda: All required information should have been submitted with Permit Application in 2004. Ecology deemed the application complete when in fact the draft permit contradicts this determination. Inconsistency is evident throughout the permit conditions and the addendums.	The original permit application for the Hanford Facility was submitted in 1994 and the Hanford Facility has been operating under this permit since that date. A permit application for renewal was submitted in 2004 and Ecology called the permit application complete. Since 1994, the permit has been modified multiple times and is operating under Revision 8C. The draft permit renewal that was transmitted for public review in 2012 has since been revised. Ecology worked with USDOE from 2013 to 2026 to receive all certified Addenda to ensure the draft Hanford Site-wide Permit, Rev. 9A has the most current and accurate information in support of each unit group.
Russell Jim	216-B-3	1. Addendum B: Reserved but information was submitted with application and should be included. The SAP should be consistent with Ecology Publication #09-05-007 Guidance for Preparing Waste Sampling and Analysis Documents and QA/QC Requirements at Nuclear Waste Sites.	A waste analysis plan (addendum B) is not required for closure units.
Russell Jim	216-B-3	2. Addendum C: Reserved but information was submitted with application and should be included.	This closure unit is not operational. This unit does not require submittal of process information.
Russell Jim	216-B-3	3. Addendum D: Discussion within this addendum does not meet the requirements of WAC 173-303 for groundwater monitoring. Addendum D is a Groundwater plan for an Interim Status Permitted facility. All facilities on the Hanford site are permitted as Final Status Permitted facilities with different regulatory requirements. The Groundwater plan is not consistent with the Dangerous Waste regulation requirements. The permit should clearly identify the groundwater protection standards that satisfy WAC 173-303-645(4), (5), (6), (7), (8), and (9). Clearly identify dangerous constituents, concentration limits, point of compliance, compliance period, and general groundwater monitoring requirements. Key elements that comprise groundwater protection standards (WAC 173-303-645(3)) are missing. The 200-BP-5 OU and 200-PO-1 should be the groundwater operable units for this permit.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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Russell Jim	216-B-3	List of Contaminants of Concern (COC) is short and should also include the following: Rational provided: The permittee previously defined contamination at the 216-B-3 through remedial investigations (DOE/RL-2000-35). The study identified chemical contamination that exceeded closure performance standards (human health direct contact screening levels for soils) for the following dangerous constituents (in the pond). • Cadmium. • Lead. • Arsenic. • Nitrate. • Mercury In this study, the permittee also identified tritium and Cesium-137. In DOE/RL-2002-69, Draft A, the permittee also identified Am-241 as a main contaminant at the pond. The permittee has previously identified as major contaminants for the 216-B-3-3 Ditch (DOE/RL-2002-69, Draft A) the following dangerous constituents: • Mercury. • Aroclor-1254. • Aroclor-1260. • Arsenic. • Cadmium. The permittee also identified Cesium-137, Pu-239, Pu-240 and Sr-90 as major contaminants for the 216-B-3-3 Ditch. The permittee previously found the following contaminants (and these should also be included on the COC list) threatening ecological receptors through the soil pathway in DOE/RL-2000-35 and DOE/RL-200-06. • benzo(a)anthracene. • benzo(a)pyrene. • benzo(b)fluoranthene. • Benzo(K)fluoranthene. • Cadmium. • Chrysene. • Indeno (1,2,3-cd)pyrene. • Lead. • Mercury. • Aroclor 1260.	The Rev 9A permit application includes a final status groundwater monitoring plan in Addendum D.

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		• Thallium. • Uranium. • Radioactive 137cesium. The permittee previously identified the following contaminants of potential ecological concern (COPECs) in addition to the contaminants above. See DOE/RL-2000-35 and DOE/RL-2002-69. • Antimony. • Hexavalent chromium. • Selenium. • Radioactive tritium, radioactive thorium-230, uranium-235, uranium-238, and strontium-90. All radiological constituents should be included as indicators for tracking purposes only. A “Methods based approach” is not used. Filtered sampling is use instead of non-filtered per regulations. Repairs & replacement of monitoring wells is not described. These actions should be in accordance with WAC 173-160. Any new wells need to be RCRA compliant wells.	
Russell Jim	216-B-3	4. Addendum E: Reserved but information was submitted with application and should be included. Required by WAC 173-303-310.	In 2018, Ecology granted the Permittees a waiver of the security procedures and equipment as identified in Washington Administrative Code (WAC) 173-303-806(4)(a)(iv). The following have been demonstrated for this DWMU to support a request of the security procedures and equipment: Physical contact with the waste, structure, or equipment within the active portion of the facility will not injure persons of livestock that may enter the active portion of the facility. Disturbance of the waste or equipment within the active portion(s) of the facility by persons or livestock will not cause a violation of the Dangerous Waste Regulations, Chapter 173-303.
Russell Jim	216-B-3	5. Addendum F: Reserved but information was submitted with application and should be included. Required by WAC 173-303-340.	In 2021, Ecology granted the Permittees a waiver. The Permittees submitted a waiver request to demonstrate the preparedness and prevention requirements found in WAC 173-303-340, WAC 173-303-806(4)(a), WAC 173-303-395(1), WAC 173- 303-650(5)(c)(ii), and WAC 173-303-650(8) are not applicable for the 216-A-29 Ditch.

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Russell Jim	216-B-3	6. Addendum G: References an unavailable document rather than including it within this addendum. Information was submitted with application and should be included. Unit specific training requirements are not sufficient for Samplers and should include an annual review in the following areas. • Collecting groundwater level data (training will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples) • Collecting packaging, and shipping groundwater samples to field and offsite laboratories, including special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or special filtering • Sampling and monitoring equipment operation and maintenance • Monitoring and reporting on groundwater well security and maintenance • Providing sample chain of custody to the laboratory • Location, integrity, and inspection of groundwater wells (to include inspection of the cap and casing of each well to ensure that it is locked, pulling and inspecting the pump, brushing the inner walls of the casing and screen, and conducting a down-hole television survey) • Erosion damage (around wells and obvious signs of erosion, proper drainage, settlement, and sedimentation) • Surface inspections (as necessary to identify and correct the effects of settling, subsidence, erosion or other events) • Vegetative cover condition • Procedures regarding emergency and monitoring equipment (to include procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment).	The waiver for security requirements excludes the need for a Training Plan (Addendum G) because the unit does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of a training plan during closure activities. A description of the training activities related to closure is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-B-3	7. Addendum H: Information was submitted with application and should be included. If deficient, Ecology should have written permit conditions to rectify concerns or written the closure plan(s) (etc)	The Rev 9A permit application includes a closure plan, at a minimum, per the closure and post-closure requirements of WAC 173-303-610 (for all dangerous waste facilities. An approved sampling and analysis plan will be included in the revision of the closure plan. Any required permit changes will be completed and approved by Ecology through the permit modification process as described in WAC 173-303-830, Permit Changes.

Commenter	Unit Group	Comment	Comment Response
Russell Jim	216-B-3	8. Addendum I: Should also coordinate and incorporate requirements listed for the 200-BP-5 and 200-PO-1OU inspection requirements. Inspection Schedule for the 216-B-3 Pond Operable Unit Surface Inspections Quarterly Security control devices: well caps, and locks Quarterly Well condition Quarterly Subsurface well condition 3 to 5 years	The waiver for security requirements excludes the need for an Inspection Plan (Addendum I) because the DWMU does not contain aboveground structures or equipment, and physical contact or disturbance of the waste is not possible since the dangerous waste is isolated from the public and livestock by terrain and access limitations. The waiver does not waive the requirements of an Inspection Plan during closure activities. A description of the inspection activities related to closure for this DWMU is still required in the closure plan per WAC 173-303-610.
Russell Jim	216-B-3	9. Addendum J: Reserved but information was submitted with application and should be included. Required by WAC 173-303-610.	Addendum J, Contingency Plans is included in the Rev 9A permit application.
Ruth Garrow	General	I would like to see the hazardous waste permit demand that the tanks and the soil around them and under them be thoroughly cleaned up and that the 40 miles of trenches be adequately monitored and cleaned. And I'd like to add that there are dangers that we haven't addressed tonight and one of them is secrecy. This whole project was born in secrecy; the workers on August 19th, 1945 didn't know what they were making plutonium for until it came out in the headlines. In '49, there was the insidious Green Run, an experiment on our own citizens to see how far Iodine-131 could be detected. In 1986, people demanded through the FOIA process to find out what had been happing in the '40s and '50s and discovered some of what had been going on at Hanford, which is why we now have our Tri-Party Agreement and these citizen hearings. When I first started working for Physicians for Social Responsibility on these issues in the spring of '97, the headlines said that the radioactivity would never reach the ground water. In the fall of that year, there were big headlines saying it had. I'm sure there are things that we don't know here tonight and I think the solution is what we've seen here tonight, which is citizens and whistleblowers who will continue to put pressure on. They will always say there's not enough money. I'd just like to add that taxpayers in this state have spent, so far, $27.5 billion on the wars in Afghanistan and Iraq, the money is there.	The Nuclear Waste Program's mission is to ensure sound management of nuclear waste statewide and to promote the sound management and protection of the environment at, and adjacent to, the U.S. Department of Energy's Hanford Site. Our Rev 9A permit is written to ensure the U.S. Department of Energy's cleanup of Hanford follows federal and state regulations, and is protective of human health and the environment for generations to come. This permit covers underground waste tanks and the trenches onsite. The duration of cleanup is impacted by a variety of factors including annual budget allocations, cleanup milestones, available technology, and complexity of cleanup. Our office continues to urge the Federal Government to adequately fund cleanup. Ecology agrees the waste in the unlined burial grounds needs to be characterized. This activity will be performed under CERCLA as part of the activities for 200-SW-2 Operable Unit. A part of the permit: CA-1, Waste Management Units includes the 200-SW-2 Operable Unit in the unit description. All 40 miles of the unlined trenches are included in the 200-SW-2 Operable Unit. Investigation and remediation under CERCLA have historically been accomplished with milestones from the M-015 and M-016 Series. These two series have been consolidated into a new M-100 Milestone Series in 2026. M-100 Milestones address all CERCLA work to be completed at Hanford.