Response to Comments
Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Class 2 Permit Modification
June 26, 2017, through September 1, 2017
Summary of a public comment period and responses to comments

October 2017
Publication no. 17-05-009
PUBLICATION AND CONTACT INFORMATION

This publication is available on the Department of Ecology’s (Ecology) website at https://fortress.wa.gov/ecy/publications/SummaryPages/1705009.html

For more information contact:

Katie Hall, Permit Writer
Nuclear Waste Program
3100 Port of Benton Boulevard
Richland, WA  99354

Phone:  509-372-7950
Email:  Hanford@ecy.wa.gov


- Headquarters, Lacey 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Lacey 360-407-6300
- Central Regional Office, Yakima 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

Ecology publishes this document to meet the requirements of Washington Administrative Code 173-303-840 (9).

If you need this document in a format for the visually impaired, call the Nuclear Waste Program at 509-372-7950. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.
Response to Comments

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Class 2 Permit Modification

June 26, 2017, through September 1, 2017

Department of Ecology
Nuclear Waste Program
3100 Port of Benton Boulevard
Richland, Washington 99354
This page is purposely left blank.
## TABLE OF CONTENTS

- Introduction ..........................................................................................................................1
- Reasons for Issuing the Permit ............................................................................................1
- Public Involvement Actions ...............................................................................................2
- List of Commenters ..............................................................................................................3
- Attachment 1: Comments and Responses
- Appendix A: Copies of All Public Notices
This page is purposely left blank.
INTRODUCTION

The Washington State Department of Ecology’s Nuclear Waste Program (NWP) manages dangerous waste within the state by writing permits to regulate its treatment, storage, and disposal.

When a new permit or a significant modification to an existing permit is proposed, NWP 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: Class 2 Permit Modification for Hanford’s Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility, June 26, 2017, through September 1, 2017

Permit: Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit Group 3 (WA7890008967), Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Original issuance date: January 28, 1998
Draft effective date: November 26, 2017

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our website: www.ecy.wa.gov/programs/nwp.

REASONS FOR MODIFYING THE PERMIT

The proposed changes are Class 2 permit modifications to the Hanford Facility Dangerous Waste Permit, which regulates the storage, treatment, and disposal of Hanford’s dangerous chemical and mixed chemical and radioactive waste. This modification is regarding the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility (LERF/ETF) and it will:

- Add two container storage areas to the permit. These areas were previously used as container storage areas, but were not clearly defined in the permit.
- Extend the date for closure of Load-In Tanks 59A-TK-109 and 59A-TK-117 to the closure of the LERF/ETF.
- Extend closure of the LERF/ETF from 2025 to 2052.

• Update the Part A Form to be Hanford Dangerous Waste Permit Revision 9 compliant.

• Remove metric equivalents of measurements throughout the permit chapter.

• Clarify permit condition III.3.P.1.c as LERF/ETF contains no existing tank systems, per WAC 173-303-040 definition of existing tank systems.

PUBLIC INVOLVEMENT ACTIONS


The following actions were taken to notify the public:

• Mailed a public notice announcing the comment period to 1460 members of the public. Copies of the public notice were distributed to members of the public at Hanford Advisory Board meetings.


• Emailed a notice announcing the start of the comment period to the Hanford-Info email list, which has 1447 recipients.

The United States Department of Energy, Office of River Protection held a public meeting on July 26, 2017, at 5:30 at the Richland Public Library. One member of the public attended, and no comments were collected.

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

• Public notice
• Transmittal letter
• Draft LERF/ETF Permit Modification

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

1. Public notice (focus sheet)
2. Classified advertisement in the Tri-City Herald
3. Notice sent to the Hanford-Info email list
LIST OF COMMENTERS

The table below lists the names of organizations or individuals who submitted a comment on the LERF/ETF Permit modification. The comments and responses are in Attachment 1.

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ginn, Judith W.</td>
<td>Citizen</td>
</tr>
<tr>
<td>Lowther, Larry</td>
<td>Citizen</td>
</tr>
<tr>
<td>Haven, Sylvia</td>
<td>Citizen</td>
</tr>
<tr>
<td>Koch, Susan</td>
<td>Citizen</td>
</tr>
<tr>
<td>Confederated Tribes and Bands of the Yakama Nation ERWM</td>
<td>Tribal</td>
</tr>
</tbody>
</table>
ATTACHMENT 1: COMMENTS AND RESPONSES

Description of Comments:
Ecology accepted comments from June 26, 2017, through September 1, 2017. This section provides a summary of comments that we received during the public comment period and our responses, as required by RCW 34.05.325(6)(a)(iii).

Comments received during the Hanford Site-wide Permit Revision 9 renewal were also addressed during this modification, but only if the comments related to one of the addenda that has been brought to Revision 9 standards: portions of the Part A Form and Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility.

Comments are grouped by individual and each comment is addressed separately.
Comment from: Judith W. Ginn

I-1-1

I am very concerned that Hanford is not being well cleaned up. It is right on the Columbia River and the Columbia River water goes on to the Pacific to pollute an even larger area. Please ensure that all the nuclear pollution is cleaned up so that it does not get into ground water or river water. I could go on, but won't. Just don't let the clean up stop until it is really and truly done.

Response to: Judith W. Ginn

I-1-1

Ecology is working to ensure that the long-term storage, treatment, and disposal of waste is protective of human health and the environment. Ecology shares your concern for the delays in the cleanup and the state is committed to the protection of human health and the environment.

Comment from: Larry Lowther

I-2-1

I urge you to engage in a thorough clean-up of nuclear waste along the Columbia River around Hanford. We need to make sure that the ground water, the source of drinking water for many people, is perfectly safe. We do not want the Washington State equivalent of Flint, Michigan.

Response to: Larry Lowther

I-2-1

Ecology is working to ensure that the long-term storage, treatment, and disposal of waste is protective of human health and the environment. Stopping any potential nuclear waste from impacting the Columbia River is not within the scope of the LERF/ETF Permit.

Comment from: Sylvia Haven

I-3-1

The clean-up record at Hanford is disgraceful and threatens the citizens of Washington State and the entire country.

Therefore Ecology must NOT grant a new "class 3 permit modification".

There is a lot of cleanup that needs to happen first to protect the waters of the Columbia.

Please get your priorities straight!

Response to: Sylvia Haven

I-3-1
Ecology is working to ensure that the long-term storage, treatment, and disposal of waste is protective of human health and the environment. The scope of this modification is the addition of two container storage areas, updating the Groundwater Monitoring Plan, and addressing closure of two tanks. Ecology classified the modification under the Washington Administrative Code 173-303-830. The State of Washington is committed to the protection of human health and the environment.

Comment from: Susan Koch

I-4-1
I would like a meeting to discuss the length of time this clean up has taken and the proposed extension of clean up. I'm a neighbor that is eager to see this beautiful fenced off area turned into a park in my lifetime.

Response to: Susan Koch

I-4-1
Ecology is working to ensure that the long-term storage, treatment, and disposal of waste is protective of human health and the environment. Ecology shares your concern for the delays in the cleanup and the state is committed to the protection of human health and the environment. To become involved in public meetings and stay current on when these meetings are held, please visit www.hanford.gov/PageAction.cfm/calendar, or visit http://www.ecy.wa.gov/programs/nwp/lists.htm and subscribe to the Hanford-Info email list to have notices emailed to you.

Comment from: Confederated Tribes and Bands of the Yakama Nation ERWM

T-1-1
The proposed modification includes the extension of closure for two tanks associated with the 2025-ED facility. This is allowable; however, the length of time requested is not justifiable. During the public meeting, the Permittee indicated steps have been taken to isolate the tanks, and cited 'financial burdens' as the primary rationale for not closing the tanks at this time. This is not a defensible reason for non-closure of these tanks per WAC 173-303-610(4). Closure of these tanks is not incompatible with the continued operation of the site. YN requests this modification to extend closure these two tanks (59-A-TK-109 and 59A-TK-117) be denied and the Permittee required to comply with WAC 173-303-610(4) within 90 days.

T-1-2
With tank removals, YN asks that total secondary containment area identified on the Part A be verified to ensure compliance with WAC 173-303 and updates made as necessary to design capacities, etc.

T-1-3
YN requests edits to LERF/ETF's Addenda and Glossary to include definition of term flow equalization. Verify and confirm that use of this terminology and process does not result in non-compliant operation of the facilities.

T-1-4
YN requests there is consideration of our comments submitted on the draft Rev 9 permit for the LERF/ETF facilities (e.g., the additional Permit Conditions). YN requests Ecology take this opportunity to make needed additional changes to the Permit Conditions and Addenda through Ecology's issue of the Permit. Our comments are attached for your convenience.

T-1-5
Additionally, although not a consensus product YN requests consideration of the points from Advice # 262 and Addendum 1 COTW/HAB on the draft Permit, Rev 9 for LERF/ETF RCRA TSDs. They are as follows:
Advice # 262: The Board advises Ecology to include in unit-specific Permit conditions requirements for upgrades and equipment replacement necessary to ensure the safe operation of Hanford RCRA-permitted facilities (e.g., 242-A Evaporator, WTP melters systems, and-so-forth).
Addendum I: 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.

T-1-6
Changes to Permit Condition III.3.R.3: YN requests retention of current Permit condition requirement to update the groundwater-monitoring network with following edits: Maintain and update the groundwater-monitoring network as needed to meet compliance with WAC 173-303-645.

T-1-7
Suggest edits to delete Permit Condition III.3.4.3.a-c if all requirements in the cited report have been met.
Suggest new Permit Condition in III.3.D to state requirements for placement (if that is the intent) of report in the Hanford Facility Operating Record for LERF and 200 Area ETF. If the intent is replacement of the Addendum D, Groundwater Monitoring Plan, or significant changes to the Groundwater Monitoring Plan, this modification should be reclassified as a Class 3 Permit modification.

Section IV - YN requests street location, etc to be specifically identified. Delete proposed; retained current information or update to reflect U.S. Department of Energy Owner/Operator office location.

Section IX- YN requests clarification of use of the additional new NAICS Codes. It is thought code information in this section is to be specific to the LERF/ETF facility per Ecology publication 030-31 instructions.

Section X-YN requests clarification as to the comment/ information proposed provided regarding the AOP. Delete or include as needed.

Section XIII- YN requests clarification of use of U code. Section XIV-Verify and confirm all estimated annual quantities of wastes

With additional number of process units (2), YN requests verification and clarification that changes in capacities do not exceed the 25% increase limits due to modifications or additions of tanks or container units [WAC 173-303-830-Appendix I]. Should these changes indicate exceedance of limits, YN requests this proposed modification be reclassified as a Class # 3 modification.

YN requests clarification and verification as to how the schedule of evaporator campaigns will ensure adequate attention is given to operational and maintenance needs for the LERF/ETF facilities.

YN requests confirmation that edits in description of the primary treatment train do not indicate changes in ETF operations (e.g., final pH adjustments and verifications).
YN requests verification and confirmation that with this modification, the secondary containment requirements for each area are sufficient for the volumes of waste to be stored therein for any point in time. Each area must comply with WAC 173-303-630/-640 requirements for secondary containment for containers and/or tanks. YN notes the interconnectedness of all secondary containment systems (e.g., drains to tanks). YN requests denial of this portion of the proposed modification unless each storage/treatment area has its own compliant secondary containment system.

T-1-17
Given the extension of the operations of the WTP facility, YN requests confirmation and verification of integrity of ETF's tanks and ancillary equipment (and secondary containment systems)

T-1-18
Given the extension of the operations of the WTP facility, YN requests confirmation and verification of the operational capabilities and integrity of LERF's liners, dikes, etc over the intended life of the facility given the extension of the operations of the WTP facility.

Confirm and verify all engineering calculations regarding structural integrity of the floor, flood-volume calculations, etc of each of the newly defined container storage and treatment areas.

T-1-19
Table C.4: Edit and confirm dimensions of required secondary containment for all equipment included in Addendum C. Verify details of types of secondary containment for each area are identified on drawings (or elsewhere; identify any referenced documents).

T-1-20
Table C.6: Confirm proposed values are consistent with capacities on the Part A form. Clarify edits to footnote #2-identify what is the operational capacity.

T-1-21
Clarify with more details, the secondary containment in use at the 2025-ED Load-in station and catch basin. Asphalt alone is not sufficient protection of human health and the environment against spills of any type. Verify appropriate secondary containment and inspection criteria are in place for these areas. To ensure secondary containment requirements are maintained, verify permit conditions are in place to ensure no waste volumes will be received which exceed the volume of available space within the containment basin at any one time.

T-1-22
Clarify with more details, control measures for run-on in the Outside Container Storage Area. Verify and confirm that containers in stored in this location do not contain free liquids or wastes which exhibit the characteristics of ignitability or reactivity. Confirm there is no need for protective covering.
Confirm Load-in Station tanks, the surge tank and the secondary treatment train are designed to manage the maximum capacity of any liquids via spills or leaks from the process area, the truck bay, container storage, and Load-in Station areas.

Clarify areas where containers of incompatible wastes are stored.

Clarify proposed text to include the use of ‘small water trucks.’ See line 28, pg. Addendum C.4 (~pg. 110 of pdf). Is this a change in operations? What waste streams, if any, are being transported?

Clarify use of and location of any 90-day storage pads. (See deleted text on page Addendum C.11).

Clarify with more details, the movement/transport of containers to other TSD facilities or to ERDF.

Confirm with closure of tank system for tanks 59A-TK-109 and -117; all system components will concurrently be managed as dangerous wastes and disposed of as dangerous wastes.

Edit line 6 proposed texts to state: If any tank system components are found not to meet ...

YN request confirmatory sampling of soils beneath both LERF's liners and ETF's concrete and asphalt (or other coated areas) in addition to visual inspects to verify no releases to the environment. Note: YN disagrees with the leaving of concrete or asphalt surfaces regardless of status of meeting the clean debris surface standards rather than returning the land to original conditions.

Section H.5.2.1: YN requests denial of proposed changes to Addendum H and modification of proposed paragraphs to reflect details of all closure activities and completion of closure activities within 90 days. None of the points made justify length of proposed schedule extension.

Table I.1: Edit to modify inspections of the Uninterruptible Power Supply (UPS) to monthly or bimonthly to ensure support of 242-A Evaporator campaigns/WTP.
Providing the SEPA checklist for public review promotes better understanding of the SEPA process and enhances public knowledge of the unit. As noted in our attached comments, the Yakama Nation believes this proposed permit modification may fall within the definition of a Class 3 Permit Modification. This should include a new SEPA determination available for public review.

T-1-34

Factsheet (likewise the Addendum C) does not explain proposed changes to Permit Condition III.3.R.3 in enough detail. It is unclear as to the intent of change. Is the Permittee merely required to ensure placement of the LERF Engineering Evaluation and Characterization Report in the Hanford Facility Operating Record or does this report replace the Groundwater Monitoring Plan or in some way require updated changes to the Groundwater Monitoring Network. Such changes could result in requirement that this modification be identified as a Class 3 modification. Verify and clarify intent of changes to Condition III.3.R.3 and provide cited report for public review.

T-1-35

The Factsheet (likewise the Addendum C) does not speak to changes resulting in increasing the quantity and updating the basis for the process design capacity and estimated annual quantity of waste. Nor does it provide details of changes to include additional NAICS Codes. YN requests verification and clarification that changes in capacities do not exceed the 25% increase limits due to modifications or additions of tanks or container units [WAC 173-303-830-Appendix I]. Should these changes indicate exceedance of limits, YN requests this proposed modification be reclassified as a Class # 3 modification. YN requests clarification of all changes on the Part A Form to be provided with new Factsheet for Class #3 modification should this be required.

T-1-36

The Factsheet omits an important aspect of the 242-A Evaporator which is that the evaporator is 35 years old and requires continual maintenance. The fact sheet omits the fact that the evaporator has a frequency of equipment failures (pumps fail etc) which have not been carefully tracked and are not carefully planned for in the future. YN requests clarification of frequency of equipment failure and a planned equipment replacement schedule is included within Addendum C and the Permit Conditions to ensure support of 242-A Evaporator campaigns over the lifetime of the facility. YN also requests verification of a schedule for equipment failures for both LERF and ETF.

T-1-37

DNS base on previously submitted SEPA checklists and prior determinations. New permits require new evaluations of current operations.

T-1-38

Edit/revise permit conditions to ensure consistency with DST permit conditions.

T-1-39
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).

T-1-40
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.

T-1-41
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].

T-1-42
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.

T-1-43
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.,

T-1-44
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

T-1-45
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.

T-1-46
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.

T-1-47
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.
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 nontoxic.

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.

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),(9)requirements.

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.

Include details in Addendum C, Pg. 15, line 27 on how any reused or reconditioned container will comply with WAC 173-303-160 requirements.

Include citation WAC 173-303-630 as a compliance requirement in Addendum C, Pg 15, line 31, Section C.3.2 Container Management Practices.

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.

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 non-condensable vapors and particulates from the spray condenser are exhausted to the vessel off gas system (including description of air filters).

Addendum D monitored dangerous constituents and those monitored in Addendum H are, disconnected. Retain Arsenic, beryllium as constituents of concern in both Addenda.
T-1-57
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)

T-1-58
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.

T-1-59
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:

o 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).
o Evaluation of wells in accordance with Sections 4.2 through 4.8.3 of Attachment 1 of the HF RCRA
o 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.
o Construction of wells pursuant to the HF RCRA Permit in compliance with WAC 173-160.

T-1-60
Addendum D: Edit LERF Groundwater Permit conditions and Addendum D to require redrilling 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-E26-11 are 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.

T-1-61

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.

T-1-62

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:

- Neutron-Neutron: determination of moisture content, porosity (saturated), and identification of aquitards and lithology
- Tensiometry/Suction Lysimetry: derivation of matrix potential; water content, hydraulic conductivity; pore water samples
- Resistivity Tomography: monitor changes in bulk density;
- Crosshole Radar: moisture distribution, lithology, soil disturbances, buried materials
- Seismic Tomography: porosity, mechanical rock properties, lithology;
- Crosshole Electromagnetic Induction: moisture distribution, identification of shallow contaminant plumes, lithology through steel casing
- High-Resolution Resistivity: moisture, lithology, geologic structure, buried materials, identification of shallow contaminant plumes
- Time Domain Reflectrometry: monitoring flow and transport, and lithology

T-1-63
Edit Addendum D, as need, to reference to D.3.11 when discussing data evaluations not D.3.13.

T-1-64
Edit Addendum F, to include compliance with WAC 173-303-340 requirements.

T-1-65
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.

T-1-66
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).

T-1-67
Edit Addendum G Training Category Matrix Table, for consistency with Addendum H, to require training in Emergency Response for Sampling Personnel.

T-1-68
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.
T-1-69
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.

T-1-70
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 Project 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.

T-1-71
Edit Addendum H, Pg. 5, line 17 Section H.1 to delete "aqueous makeup" as included in uncontaminated equipment and structures, etc.

T-1-72
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.

T-1-73
Edit Addendum H, Pg. 6, line 22 Section H.2.3 to cite WAC 173-303-140 requirements.

T-1-74
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.

T-1-75
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.

T-1-76
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.

T-1-77
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.

T-1-78
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 macroencapsulated in their entirety, by use of a jacket of inert inorganic materials and disposed of in a RCRA compliant storage facility [e.g. ERDF].

T-1-79

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.

T-1-80

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:

T-1-81

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.

T-1-82

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.

T-1-83

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.

T-1-84

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.

T-1-85
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.
T-1-86

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.
T-1-87

Edit appropriate Sections of Addendum I, to ensure compliance with WAC 173-303-320, -630(6), -640(6), and 650(4) requirements.
T-1-88

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.
T-1-89

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]
T-1-90

Clarify operating levels stated in Addendum I, Pg 7, line 2; other descriptions have indicated 29.5 million as limit.
T-1-91

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.
T-1-92

Edit for clarity, Addendum J to ensure compliance with WAC 173-303-340(3) is maintained and consistency with Addendum F.
T-1-93

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.
T-1-94
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.

T-1-95

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).

T-1-96

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.

Response to: Confederated Tribes and Bands of the Yakama Nation ERWM

T-1-1

Ecology agrees. Financial burdens are not cited in the regulations for requesting an extension to closure. WAC 173-303-610(4) and -610(4)(a)(i) allow the permittee to request an extension to closure if closure will take longer than 90 days to complete. Please refer to Addendum H, Closure Plan, for steps taken to physically isolate the affected tanks. The requirements of WAC 173-303-610(4) are specified in section H.5.2.1 of the permit modification.

T-1-2

No secondary containment quantities are identified on the Part A. Process codes and design capacities in Section XII of the Part A are identified for Load-In Station Tanks 59A-TK-109 and 59A-TK-117. However, isolation of these tanks has already occurred. Design capacities of Tanks 59A-TK-109 and 59A-TK-117 will be decreased to zero once closure of the tanks has been completed.

T-1-3

Ecology agrees. The definition of "flow equalization" will be added to the list of definitions in the unit specific conditions.

T-1-4

Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-5
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-6

Groundwater permit condition III.3.R.1 covers the requirements for updating the groundwater monitoring network. After issuance of this modification, a Class 1 prime modification will be submitted to Ecology to update Groundwater conditions under III.3.R.3. The title of the Characterization Report, referenced in permit condition III.3.R.3.c will be modified as part of this modification for consistency.

T-1-7

Conditions III.3.4.3.a-c will be removed in a Class 1 prime permit modification, per WAC 173-303-830(Appendix I)(8) once the current modification is issued and effective.

T-1-8

Ecology has verified all of the changes and the modification qualifies as a Class 2 per WAC 173-303-830(Appendix I)(C). Changes to the number, location, depth, or design of upgradient or downgradient wells of the groundwater monitoring system is a Class 2 per Appendix I, C.1.a.; changes in groundwater sampling or analysis procedures or monitoring schedule is a Class 1 prime per Appendix I, C.2; changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred is a Class 1 prime modification per Appendix I, C.3.; changes in indicator parameters, hazardous constituents, or concentration limits as specified in the detection monitoring program is a Class 2 per Appendix I, C.5.

T-1-9

The requirement is for the location to be listed for the facility for which the application is submitted. The Hanford site does not have a specific address. All unit group Part A forms will use this format for the Hanford Site wide Permit, Rev. 9.

T-1-10

Through Rev. 9 permitting guidance, it was determined that all unit groups will display the primary NAICS codes applicable to the Hanford Site.
Other environmental permits listed in the Part A are applicable to the LERF/ETF, including the Air Operating Permit.

T-1-12
The U code is used to denote process "gallons per day" per Ecology publication ECY 030-31, Table 1. Ecology has verified with the Permittee that this information is the most current. The purpose of these changes was to convert quantities from metric to English units. The estimated annual quantity of waste per dangerous waste code was verified and documented in document CHRPC-01900, Rev. 4 for the 200 Area ETF and LERF. The document is maintained in the facility operating record, and is referenced in Addendum C, Process Information, Section C.3.9.

T-1-13
The addition of two container storage areas does not increase the facility's storage capacity, but redefines the existing storage areas. The facility was not expanded to accommodate the additional container storage areas. This type of permit modification is classified as a Class 2 and falls under WAC 173-303-830(Appendix I)(F)(2)(a), Modification of a container unit without increasing the capacity of the unit.

T-1-14
The schedule of 242-A Evaporator campaigns does not determine maintenance needs for LERF/ETF. LERF/ETF uses preventive maintenance to enhance equipment performance and service and pursues system upgrades according to prioritized need.

T-1-15
No changes were proposed to ETF operations, therefore this comment is not within the scope of this permit modification.

T-1-16
For tank capacity and secondary containment volume calculations, please refer to document CHPRC-01900, Rev. 4. Addendum C, Section C.3.9 describes the interconnectedness of the tank systems and refers to CHPRC-01900 which provides calculations for secondary containment capacities and verifies that the secondary containment capacities are adequate. With the exception of the Outdoor Container Storage Area, all other container storage areas are using secondary containment as approved in the permit application.
Changes affecting secondary containment systems and ancillary equipment are not within the scope of this permit modification. DOE is required to conduct the integrity program tank corrosion inspections as required under Section C.4.1.5 of this permit.

T-1-18
Comments regarding liner integrity of the LERF basins are not within the scope of this modification. As part of this modification, Ecology has reviewed the calculations provided in the DOE document CHPRC-01900, referenced in Addendum C, Process Information.

T-1-19
No changes to Table C.4 were requested as part of this modification. Please refer to document CHPRC-01900, Rev. 4, "200 Area Effluent Treatment Facility Resource Conservation and Recovery Act Permit Capacity Calculations," for tank capacity and secondary containment calculations.

T-1-20
The operational capacity was clarified because the capacity of the tank listed in Table C.6 was not consistent with the engineering document, Mausshardt, 1995. There is no increase in capacity proposed as part of this modification.

T-1-21
Ecology agrees to add a permit condition stating, "The accumulation of liquid waste stored in the Load-In Station will not be greater than the capacity of the containment pit (sump)." Section C.3.9 describes the Load-In station secondary containment. The 2025-ED Load-In Station utilizes sloped floor to drain liquid to the floor depression, onward to the 59-TK-1 catch basin, and ultimately to the west bay truck pad. The west bay truck pad has a 6-inch high curb to contain the spills and is coated. The east truck pad floor depression is coated. Both pads are sloped to drain liquids to the Load-In Station tank secondary containment pit. Section C.3.9 mentions that the volume of the Load-In Station containment pit is greater than the volume of the largest tanker expected to be received.

T-1-22
Section C.3.9 of Addendum C provides details on secondary containment for containers with free liquids in the Outside Container Storage Area. Run-on to this area is controlled by a surface sloped away from the storage area. See section C.3.9.2 for details on how run-on is controlled in the Outdoor Container Storage Area. A new permit condition will be added to require the permittee to meet the requirements of WAC 173-303-630(7)(b) and -630(7)(c).
A permit condition will be added to require the permittee to not store liquid waste in the Load-In Station in quantities that would exceed the capacity of the containment sump.

Containers of incompatible wastes may be managed in any of the permitted container storage areas and must meet the requirements listed in WAC 173-303-640(9) and as described in Section C.3.9 of Addendum C, Process Information. Section C.3.9.4 will be updated.

Ecology agrees. Text will be changed from "small water truck" to "small tanker truck." Use of a small tanker truck is a clarification, and not a change in operations. The tanker trucks are used to transfer aqueous waste. Refer to Section C, "aqueous waste includes process condensate from the 242-A Evaporator and other aqueous waste generated from onsite remediation and waste management activities."

Ninety-day storage areas are generator activities and not subject to permitting requirements, therefore this text was deleted from the permit.

Ecology agrees. Will add the following text to Addendum C, Section C.3.4: "Containers may be transferred by forklift, approved transport vehicle, or by hand."

The Load-In Station tanks have been isolated and are no longer in use. Final disposition of equipment will be concurrent with closure of the facility. Ecology agrees that both tanks and ancillary equipment will be disposed of as a dangerous waste. Clarification has been made within Section H.5.2.1.

Clean debris surface is only attainable for components that can be visually inspected for evidence of hazardous waste as described in 40 CFR Part 268 and incorporated by reference in WAC 173-303-140. Therefore, this standard may not apply to all components of a tank system, i.e. small diameter piping. See Addendum H, Section H.2 for details on the closure performance standard for the LER/ETF. No change will be made to this text.
No changes are proposed to the closure performance standards, therefore this comment is not within the scope of this permit modification.

Per WAC 173-303-610(4)(a)(i), the extension may be requested if the activities required to close the unit will take longer than ninety days to complete and the Permittee has demonstrated that he has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

This comment is not within the scope of proposed changes in the modification.

On June 19, 2017, the Manager of the U.S. Department of Energy (USDOE) Office of River Protection (ORP) submitted a Class 2 permit modification request for the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion for the Treatment, Storage and Disposal of Dangerous Waste. ORP proposed several changes to the permit that controls Operating Unit Group 3 Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility. Among them were several Class 1 Prime changes:
• Extension of the closure period
• Changes in the expected year of closure (other permit conditions did not change)
• Changes in groundwater sampling or analysis procedures or monitoring schedules
• Changes in the statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred.

ORP also requested several Class 2 modifications:
• Addition of container storage areas that did not result in an increase in capacity of the unit
• Changes in the number, location, depth, or design of upgradient or downgradient wells in the groundwater monitoring system
• Changes in the indicator parameters, hazardous constituents, or concentration limits as specified in the detection monitoring program.

Ecology reviewed each of the proposed modifications against the descriptions in Washington Administrative Code Chapter 173-303 Dangerous Waste Regulations
The review verified the that permit modification met the criteria of a Class 2 change, per Section 173-303-830 Permit Changes (4) Permit modification at the request of the permittee (a) Class 1 modifications, (b) Class 2 modifications, and Appendix I. None of the permit modifications that ORP requested met the definition of a class 3 change in Appendix I; therefore, Ecology does not support the commenter's contention that the permit modifications are Class 3 modifications.

T-1-34
Permit Condition III.3.R.3 requires the Permittees to place the LERF Engineering Evaluation and Characterization Report in the Hanford Facility Operating Record. The proposed Groundwater Monitoring Plan will be located in Addendum D of the Permit. Ecology has verified all of the changes and the modification qualifies as a Class 2 per WAC 173-303-830(Appendix I)(C).

T-1-35
Ecology has verified all of the changes and the modification qualifies as a Class 2 per WAC 173-303-830(Appendix I).

The estimated annual quantity of waste and process design capacity was not increased. The purpose of these changes was to convert quantities from metric to English units. Through Rev. 9 permitting guidance, it was determined that all unit groups will display the primary NAICS codes applicable to the Hanford Site.

The addition of the container storage areas did not result in an increase to the capacity of the unit. Per WAC 173-303-830, Appendix I, 2.a., this is a Class 2 modification. The extension of the closure period is a Class 1 prime modification, per Appendix I, D.1.b and changes in the expected year of final closure, where other permit conditions are not changed, is also a Class 1 prime per Appendix I, D.1.c.

Changes to the number, location, depth, or design of upgradient or downgradient wells of the groundwater monitoring system is a Class 2 per Appendix I, C.1.a.; Changes in groundwater sampling or analysis procedures or monitoring schedule is a Class 1 prime per Appendix I, C.2; Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred is a Class 1 prime modification per Appendix I, C.3.; Changes in indicator parameters, hazardous constituents, or concentration limits as specified in the detection monitoring program is a Class 2 per Appendix I, C.5.

T-1-36
Equipment failures are not within the scope of this permit modification. Equipment failure cannot be predicted, therefore there is no schedule for verification of equipment failures for LERF/ETF. LERF/ETF uses preventive maintenance to enhance equipment performance and service and pursues system upgrades according to prioritized need.
T-1-37
ORP did not submit a SEPA checklist with this request for a Class 2 permit modification, because the potential adverse environmental impacts of operating the Liquid Effluent Retention Facility and 200 Area EFT had already undergone evaluation. Ecology added the unit to Revision 4 of the Hanford Site Resource Conservation and Recovery Act Dangerous Waste Portion for the Treatment, Storage and Disposal of Dangerous Waste in on January 1, 1998. As stated in Section 2.7 of the SEPA Handbook, SEPA determinations do not have expiration dates.

On April 25, 2012, the Nuclear Waste Program issued another SEPA Determination that included the LERF/200 Area ETF. Ecology made that determination for the then current phase of the SEPA Phased Review of the draft Hanford Site Dangerous Waste Permit Revision 9. For the LERF/200 Area ETF, the proposed action was to continue unit operation. The recent Class 2 permit modification that ORP submitted addressed specific provisions in the dangerous waste permit but did not open all of the provisions in the permit to review. Changes that ORP proposed did not constitute material changes that might have had the potential for significant adverse environmental impacts.

T-1-38
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-39
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-40
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been
modified to meet Rev. 9 standards.

T-1-41
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-42
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-43
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-44
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-45
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been
modified to meet Rev. 9 standards.

T-1-46
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-47
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-48
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-49
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-50
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been
modified to meet Rev. 9 standards.

T-1-51
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-52
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-53
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-54
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-55
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been
modified to meet Rev. 9 standards.

T-1-56
Identification of dangerous constituents for groundwater monitoring was conducted per WAC 173-303-645(4). The constituent selection process for the Groundwater Monitoring Plan in the current modification does not include arsenic and beryllium because these constituents have a distribution coefficient (Kd) value that exceeds 0.8 mL/g. As described in Appendix E of the LERF Engineering Evaluation and Characterization Report, selecting a higher Kd value may result in releases for those constituents going undetected beyond the operating life of the site. Thus, arsenic and beryllium are excluded. Also, Addendum H Section H.3.2 states, "Arsenic and beryllium are excluded because they are present in Hanford soils and may therefore give a false positive sample result."

T-1-57
Ecology agrees. All references to Shewhart/CUSUM method have been removed through updating and reformatting Addendum D.

T-1-58
The Groundwater Monitoring Plan has been revised to incorporate new downgradient groundwater monitoring well 299-E26-15, and updates the groundwater monitoring network to utilize existing wells as upgradient and crossgradient monitoring wells to meet WAC 173-303-645.

T-1-59
Ecology agrees. Attachment 8 of the Hanford Site-wide Permit includes a revised well maintenance and Inspection Plan (HNF-56398, Revision 2, previously BHI-01265, Revision 0). Attachment 8 of the Hanford Site-wide Permit provides an updated well inspection plan and requires placement of documentation in the Hanford Facility Operating Record. Attachment 1 of the Hanford Site-wide permit does not contain Sections 4.2 through 4.8.3. However, the revised Groundwater Monitoring Plan meets the requirements of WAC 173-303-645 and -160. General Permit Condition II.F.2.c includes the requirement to provide written notice at least 72 hours prior to remediation or abandonment of any well. No change will be made to the unit-specific text. Permit Condition III.3.R.2 requires wells be constructed in compliance with WAC 173-160, as well as Attachment 8 to the Hanford Site-wide Permit.
The LERF Engineering Evaluation and Characterization Report, SGW-41072, provides justification for the well network that is included in the revised Groundwater Monitoring Plan.

T-1-61
Calculation of aquifer decline rate, lateral continuity of the unconfined aquifer, relationships between groundwater in different formations, incorporated information on hydrogeologic testing, well construction, and monitoring have been addressed in the revised Groundwater Monitoring Plan and Engineering Evaluation and Characterization Report.
Leachate levels are monitored at least weekly as described in Addendum C, Section C.5.6.
Descriptions of procedures and protocol to monitor leachate quantity are provided in Addendum C, Section C.5.6.
The Permittee will retain at the Facility, or other Ecology-approved location, records of all monitoring and maintenance records as required by General Permit Condition I.E.10.

T-1-62
The revised Groundwater Monitoring Plan and Engineering Evaluation and Characterization Report address and describe the interconnectedness of the LERF groundwater monitoring wells. An effective groundwater monitoring network has been installed. Therefore, vadose zone monitoring methods do not need to be applied.

T-1-63
Ecology agrees. This change has been made to Addendum D.

T-1-64
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9 Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-66
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9 Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-67
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9 Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-68
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9 Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-69
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9 Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-70
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-71
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-72
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-73
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-74
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-75
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-76
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-77
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-78
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-79
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-80
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-81
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-82
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-83
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-84
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-85
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-86
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-87
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-88
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-89
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-90
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-91
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-92
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-93
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-94
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-95
Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.

T-1-96

Comments received during the Hanford Dangerous Waste Permit Rev. 9 renewal will be addressed within the Rev. 9. Response to Comments Document. Comments received as part of the renewal will not be addressed during modifications to Rev. 8C, unless the comment pertains to Addendum D, Groundwater Monitoring Plan for the Liquid Effluent Retention Facility, and modified portions of the Part A, which have been modified to meet Rev. 9 standards.
APPENDIX A: COPIES OF ALL PUBLIC NOTICES

Public notices for this comment period:

1. Fact Sheet
2. Display advertisement in the *Tri-City Herald*
3. Notice sent to the Hanford-Info email list
Permit change proposed to support Hanford waste management facilities

The U.S. Department of Energy Office of River Protection (ORP) and Washington River Protection Solutions (WRPS) are holding a 60-day public comment period on proposed modifications to the Hanford Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) Permit. This change is needed to add two container storage areas, address closure of two tanks, as well as to reformat and add a new well to the LERF Groundwater Monitoring Plan.

Background
The Hanford Site is located in southeastern Washington State along the Columbia River. The 580-square-mile site was created in 1943 as part of the Manhattan Project to produce plutonium for the nation’s defense program. Today, waste management and environmental cleanup are the main missions at Hanford.

The LERF and 200 Area ETF unit is a wastewater storage and treatment system in Hanford’s 200 East Area (center of the Hanford Site). The system receives process wastewater from the 242-A Evaporator and other Hanford remediation and waste management activities. The LERF consists of three lined surface impoundments (basins). Wastewater from LERF is pumped to the 200 Area ETF for treatment to remove contaminants.

LERF and ETF operations are subject to the Hanford Dangerous Waste Permit, issued by the Washington State Department of Ecology.

Summary of Proposed Changes
This Class 2 permit modification requests revision of the LERF and 200 Area ETF chapter of the Hanford Permit. The modification request updates existing permit addenda to address the addition of two container storage areas; physical isolation of two tanks located next to Building 2025-ED by September 2017, and the extension of closure for these tanks to the closure of the LERF and 200 Area ETF. The permit modification also proposes reformatting and adding one new well to the LERF Groundwater Monitoring Plan. The addenda included in this modification are the Part A Form, Waste Analysis Plan, Process Information, Groundwater Monitoring Plan, Closure Plan, and Inspection Plan.

We welcome your comments on these proposed changes. The documents are available for review during the comment period on Ecology’s Nuclear Waste Program website and at the Hanford Public Information Repositories listed below. For more information, contact Dieter Bohrmann, ORP, at Dieter_G_Bohrmann@orp.doe.gov or (509) 376-9292.

Public Comment Period
We want your feedback on this proposed modification. The public comment period is June 26 to September 1, 2017.
A public meeting will be held at 5:30 p.m., Wednesday, July 26 at the Richland Library (955 Northgate Drive).
The meeting will also be accessible via webinar. To register, go to: https://attendee.gotowebinar.com/register/8280075005970079490 (Webinar ID: 860-590-003)
LERF and 200 Area ETF. The area highlighted in the red circle is part of the proposed permit modification.

Load-In Station Tanks (59A-TK109 and 59A-TK-117) located next to Building 2025-ED.
How to Get Involved

A 60-day public comment period on a proposed Class 2 modification to Part III, Operating Unit 3 of Hanford’s Dangerous Waste Permit will run from June 26 through September 1, 2017. A public meeting will be held at 5:30 p.m. July 26 at the Richland Public Library, 955 Northgate Drive in Richland, WA. For more information, see the Hanford Events Calendar at [http://www.hanford.gov/pageAction.cfm/calendar?&IndEventID=8237](http://www.hanford.gov/pageAction.cfm/calendar?&IndEventID=8237).

Please submit comments electronically by September 1, 2017, on the proposed changes via eComments to: [http://wt.ecology.commentinput.com/?id=ereum](http://wt.ecology.commentinput.com/?id=ereum)

Or mail to:

Stephanie Schleif  
Washington State Department of Ecology  
3100 Port of Benton Boulevard  
Richland, WA 99354

*The Permittees’ compliance history during the life of the permit being modified is available from the Washington State Department of Ecology. Contact Stephanie Schleif at 509-372-7950.*

Hanford Public Information Repositories


Copies will also be available at the Hanford Public Information Repositories listed below.

<table>
<thead>
<tr>
<th>Repository Location</th>
<th>Address</th>
<th>Contact Name</th>
<th>Phone</th>
<th>Map Link</th>
</tr>
</thead>
</table>
| Portland State University                 | Government Information  
Branford Price Millar Library  
1875 SW Park Avenue  
Portland, OR 97207-1151  
Attn: Bertrand Robinson  
(503) 725-4128 |                  |            | [www.pdx.edu/map.html](http://www.pdx.edu/map.html) |
| University of Washington                  | Suzzallo Library  
Government Publications Dept.  
Box 352900  
Seattle, WA 98195-2900  
Attn: Hilary Reinert  
(206) 543-5597 |                  |            | [www.tinyurl.com/m8ebj](http://www.tinyurl.com/m8ebj) |
| U.S. Department of Energy                 | Public Reading Room  
Washington State University, Tri-Cities  
Consolidated Information Ctr.,  
Rm. 101-L  
2770 Crimson Way  
Richland, WA 99352  
Attn: Janice Parthree  
(509) 372-7443 |                  |            | [www.tricity.wsu.edu/campusmap/s/campusmap.pdf](http://www.tricity.wsu.edu/campusmap/s/campusmap.pdf) |
| Gonzaga University                        | Foley Center Library  
East 502 Boone Avenue  
Spokane, WA  
Attn: John Spencer  
(509) 313-6110 |                  |            | [www.tinyurl.com/2c6bpm](http://www.tinyurl.com/2c6bpm) |
| Ecology Nuclear Waste Program Resource Center | 3100 Port of Benton Blvd.  
Richland, WA 93354  
Attn: Teresa Booth  

Administrative Record and Public Information Repository:  
**Address:** 2440 Stevens Center Place, Room 1101, Richland, WA  
**Phone:** 509-376-2530  
**Web site:** [www2.hanford.gov/arpir/](http://www2.hanford.gov/arpir/)
Hanford
Public Involvement
Opportunity

We want to hear from you on these proposed modifications for the Hanford Permit!

Comment Period: June 26 – September 1, 2017
Public Meeting: 5:30 p.m. July 26 at the Richland Public Library
Melania and Barron settle into life in D.C.

BY DARLENE SUPERVILLE
WASHINGTON

T hree years ago, when Donald J.
Widmer, 61, the 28th president of
the Franklin Institute, a philosophe
tonian, returned to New York, the
family returned from a Father’s Day weekend re-
union at the nation’s capital. Mrs. Widmer had
told the body was that of her
brother, Frank J. Kerrigan, of Silverado City, Cali.
fied Kerrigan by using an
old driver’s license photo.

Private Kenneth Cordova was re-
ned Friday night, but the
Thunderbird F-16 left the
Thunderbirds F-15 left the
Thunderbirds has said
perform Saturday at the

The Thunderbirds did not
perform at the Saturday evening show, but the
crowd posted on Twitter late Saturday after-
noon that it would not per-
form Sunday.

The commander in charge of the
Thunderbirds has said a safety board will deter-
mine what caused the accident that occurred at the end of an advance flight before the weekend’s shows.

"Looking forward to the
memories we’ll make in our new home of Arlington," she wrote on a photo of the Washington Monument as seen from a White House window.

"It was incredible, the
time she spent fighting a
cancer," said Frank J. Kerrigan’s
brother, John Kerrigan.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

The Associated Press

EARLIER, IN THE FUNERAL
SERVICE, Kerrigan’s son was
standing on the patio.

Kerrigan’s son was

Doug Easton, an attorney hired by Kerrigan, said coroners usually wouldn’t be able to match the corpse’s fingerprints through a law enforcement database.

"It was a very different situation and a pretty disturbing scene. These are fingerprints and dirty blanket sheets," she said.

Then came the May 23 phone call from Shinkel. Kerrigan’s son was standing on the patio.

"We thought we were
buried our brother," she
said. "Someone else had
been buried instead of
Frank’s sister, John Kerri-
gan got the call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.

"Son you are alive," he said.
"Bill (Shinkel) put my sons
photos on the phone," Kerrigan
said. "He said ‘Hi Dad.’"

The Associated Press

SANTA ANA, CALIF.

Eleven days after laying his
son to rest, Frank J. Kerri-
gan got a call from a friend.
Viognier goes on to seduce winemakers

Viognier has always been a tantalizingly elusive grape. It is difficult to grow, and it is equally difficult to make into a balanced and delicious wine.

Yet the grape and its often highly floral aromatics has captured the imagination of many Pacific Northwest winemakers, many of them caught up in the growing interest in Rhine varieties.

Viognier originates in France’s Rhône Valley where it is known as Cinsault-Rouge. As recently as 1996, Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine- 

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine- 

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine- 

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine- 

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Viognier has always been a tantalizingly elusive grape. It is difficult to grow, and it is equally difficult to make into a balanced and delicious wine.

Yet the grape and its often highly floral aromatics has captured the imagination of many Pacific Northwest winemakers, many of them caught up in the growing interest in Rhine varieties.

Viognier originates in France’s Rhône Valley where it is known as Cinsault-Rouge. As recently as 1996, Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Viognier has always been a tantalizingly elusive grape. It is difficult to grow, and it is equally difficult to make into a balanced and delicious wine.

Yet the grape and its often highly floral aromatics has captured the imagination of many Pacific Northwest winemakers, many of them caught up in the growing interest in Rhine varieties.

Viognier originates in France’s Rhône Valley where it is known as Cinsault-Rouge. As recently as 1996, Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Viognier has always been a tantalizingly elusive grape. It is difficult to grow, and it is equally difficult to make into a balanced and delicious wine.

Yet the grape and its often highly floral aromatics has captured the imagination of many Pacific Northwest winemakers, many of them caught up in the growing interest in Rhine varieties.

Viognier originates in France’s Rhône Valley where it is known as Cinsault-Rouge. As recently as 1996, Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.

Today, Viognier remains a darling amid state wine-

ditions, which explains the high demand for this grape. Viognier had dwindled to less than one acre and app. on the brink of extinc- tion, but the grape and its often high floral aromatics has caught up in the growing interest in Rhine varieties.
This is a message from the U.S. Department of Energy

Notice of Public Comment Period on Proposed Changes to the Hanford LERF and 200 Area ETF Dangerous Waste Permit

The U.S. Department of Energy Office of River Protection is planning a 60-day public comment period to support a proposed modification to the Hanford Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) permit. This Class 2 modification is needed to add two container storage areas, address closure of two tanks, as well as to reformat and add a new monitoring well to the LERF Groundwater Monitoring Plan.

The public comment period is expected to begin in late June, with a public meeting planned for July.

The proposed modification and supporting documentation will be available during the comment period at http://pdw.hanford.gov/arpir/ as well as at the Hanford Administrative Record and Public Information Repositories located in Richland, Seattle, Spokane and Portland.

A summary fact sheet and details of the public meeting will also be provided when the comment period begins.

Questions? Please contact Dieter Bohrmann, DOE-ORP, at Dieter_G_Bohrmann@orp.doe.gov.

Visit us on the web or social media.

Subscribe or Unsubscribe
This is a message from the U.S. Department of Energy

The U.S. Department of Energy Office of River Protection (ORP) and Washington River Protection Solutions (WRPS) are holding a 60-day public comment period on proposed modifications to the Hanford Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) Permit. This Class 2 modification is needed to add two container storage areas, address closure of two tanks, as well as to reformat and add a new monitoring well to the LERF Groundwater Monitoring Plan.

The public comment period runs from **June 26 through September 1, 2017**, with a public meeting scheduled for **July 26 at 5:30 p.m.** at the Richland Public Library (955 Northgate Drive). The meeting will also be accessible via webinar. To register, go to: [https://attendee.gotowebinar.com/register/8280075005970079490](https://attendee.gotowebinar.com/register/8280075005970079490) (Webinar ID: 860-590-003)

Submit comments electronically (preferred) or by mail by **September 1, 2017** to:
Stephanie Schleif  
Washington Department of Ecology  
3100 Port of Benton Boulevard  
Richland, WA 99354  
Electronic comments: [http://wt.ecology.commentinput.com/?id=ereum](http://wt.ecology.commentinput.com/?id=ereum)  
Phone: (509) 372-7950

The proposed modification and supporting documentation are available for review online at [http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0069670H](http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0069670H), on Ecology's [website](http://wt.ecology.wa.gov/), and at [Hanford Administrative Record and Public Information Repositories](http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0069670H) located in Richland, Seattle, Spokane and Portland. Copies can also be reviewed in person at the Hanford Administrative Record Public Information Repository at 2440 Stevens Drive in Richland. The permittee’s compliance history during the life of the permit being modified is available from the department of ecology contact person.
For more information, please see the attached fact sheet or contact Dieter Bohrmann, ORP, at [Dieter.G.Bohmann@orp.doe.gov](mailto:Dieter.G.Bohmann@orp.doe.gov) or (509) 376-9292.

Visit us on the [web](http://wt.ecology.wa.gov/) or [social media](http://wt.ecology.wa.gov/).

[Subscribe](http://wt.ecology.wa.gov/) or [Unsubscribe](http://wt.ecology.wa.gov/)