Response to Comments
Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Class 3 Permit Modification
February 3 – March 19, 2020

Summary of a public comment period and responses to comments

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Response to Comments

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February 3 – March 19, 2020

Nuclear Waste Program
Washington State Department of Ecology
Richland, Washington
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Introduction

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

This public comment period was held for a Class 3 permit modification. 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: Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Class 3 Permit Modification, February 3 through March 19, 2020


Permittee(s): U.S. Department of Energy

Original issuance date: January 28, 1998

Draft effective date: June 19, 2020

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our website: https://www.ecology.wa.gov/Hanford.
Response to Comments
LERF and 200 Area ETF Modification

Reasons for issuing the permit

The proposed Class 3 permit modification affects the Liquid Effluent Retention Facility (LERF) and the 200 Area Effluent Treatment Facility (ETF) portion of the Permit. The changes to the Permit will:

- Add primary waste transfer line from the Waste Treatment and Immobilization Plant’s Effluent Management Facility to the LERF and 200 Area ETF permit, and authorize connection of that transfer line to the LERF.
- Add a secondary waste Brine Load-Out System inside ETF (Building 2025E).
- Add a filter sump tank to the existing Load-In Station (Building 2025ED).

Public involvement actions

Ecology held a public comment on the proposed LERF and 200 Area ETF Class 3 Permit Modification. The 45-day public comment period was held from February 3 through March 19, 2020.

We took the following actions to notify the public:

- Mailed a public notice announcing the comment period to 1209 members of the public.
- Distributed copies of the public notice 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 1346 recipients.
- Posted the comment period as an event on the Washington Department of Ecology – Hanford Facebook page and Twitter Page.

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

- Public notice
- Transmittal letter
- Statement of Basis for the proposed LERF/ETF Permit Modification
- Draft LERF/ETF Permit Modification

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

- Focus sheet
- Classified advertisement in the Tri-City Herald
- Notice sent to the Hanford-Info email list
- Event posted on the Washington Department of Ecology – Hanford Facebook and Twitter pages
List of Commenters

The table below lists the names of organizations or individuals who submitted a comment on the LERF and 200 Area ETF Permit modification. The comments and responses are in Attachment 1.

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Organization</th>
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<tr>
<td>Jeanne Poirier</td>
<td>Citizen</td>
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<td>Mike Conlan</td>
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<td>Anonymous</td>
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<td>Washington River Protection Solutions, LLC</td>
<td>Washington River Protection Solutions, LLC</td>
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Attachment 1: Comments and responses

Description of comments:
Ecology accepted comments from February 3 to March 19, 2020. 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 are grouped by individual and each comment is addressed separately.
I-1: JEANNE POIRIER

Comment I-1-1
Hanford is an extremely challenging situation. These seem like improvements to the handling of nuclear waste and safety for your workers. Please do everything in your power to control and protect this outrageous situation.

Response to I-1-1
Thank you for your comment. Ecology is committed to preserving and protecting Washington's environment for future generations.

I-2: MIKE CONLAN

Comment I-2-1
1. Remove all nuclear waste,
2. Do not allow anymore nuclear waste into the facility,
3. Replace all the single storage tanks,
4. Stop all the nuclear leakage entering the Columbia River
5. Glassification!

Response to I-2-1
Thank you for your comment.

1. Ecology is working to ensure that long-term storage, treatment, and disposal of the waste is protective of human health and the environment.

2. The proposed permit changes are not to allow additional nuclear waste into the Hanford Facility, but to better manage the waste already present.

3. Single-shell tanks (SSTs) are not in the scope of this comment period. Ecology does agree that the tanks pose a threat. Ecology believes a better approach to replacing the SSTs is to remove the waste from the SSTs and placing it in the compliant double-shell tanks (DSTs) to prepare for eventual treatment in the Waste Treatment Plant that is now being built.

4. The LERF and 200 Area ETF maintains a groundwater monitoring program in which groundwater is sampled to detect for releases from the facility. Monitoring is performed on a quarterly and semiannually basis. This monitoring program helps prevent migration of contaminated groundwater into the Columbia River.

5. When completed the Waste Treatment and Immobilization Plant will have the treatment capability to vitrify tank waste.

I-3: ANONYMOUS CITIZEN

Comment I-3-1
Among other changes, modifications to the permit addenda include facility improvements to accommodate increased wastewater volume in support of the Direct Feed Low-Activity Waste (DFLAW) project. These improvements include installing a brine waste load-out system inside the 200 Area ETF. The brine load-out system will be located within building 2025E. Brine waste
from the brine load-out system will be transferred into containers called totes [but have no disposal pathway].

**Response to I-3-1**

Thank you for your comment. Please see responses to items I-3-2 through I-3-6 for additional detail on the brine loadout system.

**Comment I-3-2**

There are a number of drawings showing significant design and facility changes to support the brine loadout system. This indicates considerable expense and effort that do NOT result in a disposed waste form, and are NOT consistent with the Tank Closure and Waste Management EIS. The effort creates yet another intermediate Hanford waste, which increases the exposure to personnel (every time you handle it), and could take waste "off the Hanford books" so that the increased exposures during brine treatment are not tracked. In the response to comments (R2C) Ecology noted that "Ecology does not enforce the requirements of DOE Order 413.3B, so any requirements referenced in this comment wouldn't be a basis for Ecology to request that the project be put on hold." DOE's established DOE Orders, such as DOE 0 413.3B, are intended to protect the public, the environment, and the taxpayers' check books. Ecology's indifference to DOE mismanagement is therefore disappointing. I believe that ETF grouting capability (for brine or powder), per the on-hold DOE project ORP-0014.C1, should be the preferred pathway, instead of spending money to physically implement a NEPA decision that has not been analyzed or made.

**Response to I-3-2**

While Ecology does not enforce the requirements of DOE Order 413.3B, we are working diligently to ensure that brine waste will be managed and disposed of in an acceptable manner. This permit modification is a step toward improving the throughput of the Effluent Treatment Facility and allows Ecology to retain authority over the management and disposal of the waste stream.

**Comment I-3-3**

According to the response to comments (R2C), Ecology states: As part of this permit modification and in response to public comments, Ecology added permit conditions to restrict the operation of the brine loadout system until a disposal and treatment pathway for the liquid brine waste is identified by DOE. Despite this restriction, Ecology established in Addendum C, (page Addendum C.15), that the existing thin film dryer is "an alternative to the brine loadout system." This creates the impression that Ecology and DOE actually consider the unknown disposal path brine loadout flow sheet to be the primary waste pathway, and not the other way around.

**Response to I-3-3**

The response to comments (R2C) is stated correctly. The statement in Addendum C, page Addendum C.15, that the existing thin film dryer is "an alternative to the brine loadout system", was added because the DOE can operate either the thin film dryer or the brine loadout system at the 200 Area ETF.

**Comment I-3-4**

I appreciate Ecology's restrictions on operating the brine loadout system, because DOE's ORP mission flowsheet is out of control since the rush began to implement DFLAW. As Ecology
noted, a DOE Environmental Assessment has NOT been written for processing, storage, shipping, and disposal of ETF Brine, beyond the original project that would have installed grouting capability at the ETF (Project ORP-0014.C1). Project ORP-0014.C1 was selected and approved by DOE, then put, for years, "on hold."

As a precedent, Ecology should be aware that DOE is writing an Environmental Assessment (currently in review) for offsite treatment and disposal of Savannah River DWPF wastewater effluent. The Draft SRS DWPF Recycle Wastewater EA evaluates potential impacts from a proposed action to retrieve, stabilize, and dispose of up to 10,000 gallons of Defense Waste Processing Facility (DWPF) recycle wastewater from Savannah River Site (SRS) at a commercial low-level radioactive waste disposal facility located outside of South Carolina ... [Federal Register Vol 84, No. 249/ Monday, December 30, 2019.] The assessment comes BEFORE any construction is implemented.

According to the EPA's "Citizen's Guide to NEPA1," an Environmental Assessment is intended to determine the significance of environmental effects and ALSO to look at alternative means to achieve the agency's objectives. DOE has leapt to a construction decision for brine loadout without the requisite analysis.


Response to I-3-4

If the brine is shipped offsite DOE will need to conduct a National Environmental Policy Act (NEPA) review.

Comment I-3-5

According to addendum C, the 2025-E Truck Bay will store aqueous wastes, brine, and dry powder. What design features segregate the liquids from contact with the solids in the storage area? Are the features active during truck liquid load in and during treatment steps?

Response to I-3-5

The 2025E Truck Bay Container Storage and Treatment Area and the 2025E Container Storage and Treatment Area are permitted to store both liquid and powder containers at the same time. Powder drums stored in the 2025E Truck Bay Container Storage and Treatment Area are generally in preparation for shipment for further treatment or to a disposal facility. Daily inspections are performed to check for leaks. Permit storage and treatment requirements are maintained and implemented in the container storage and treatment areas during movement of the containers and during treatment activities. The dry powder and aqueous waste (brine) are compatible waste; there is no requirement to segregate compatible waste. The liquid waste is required to have secondary containment. A waste that could be incompatible with other wastes is separated and protected from the incompatible waste as stated in Section C.3.9.4, Prevention of Ignitable, Reactive, and Incompatible Wastes in Containers.

Comment I-3-6

I did not see a revised flow sheet or material balance to show the flows and chemical compositions including the new flows from the DFLAW project at WTP to ETF. How can equipment be designed if there is no flow sheet or understanding of the chemistry? I noticed that the recent semi-annual project compliance report for the Tri-Party Agreement (letter 20-ECD-0002) includes a milestone for a flow sheet. M-062-50, due on January 30, 2021 is for ORP to Submit to Ecology, as a secondary document, a Mass Balance Flow from Tank Farms to Low
Activity Waste Pretreatment Capability to Low Activity Waste to Effluent Management Facility to Recycle to Tank Farms and to LERF/ETF. This is from tank farms to LAWPS to WTP LAW/EMF to ETF. It appears the brine loadout may have been designed without a flow sheet. Ecology should consider whether this permit modification is premature.

**Response to I-3-6**

Addendum B, Waste Analysis Plan for LERF and 200 Area ETF, requires the generator (i.e., DFLAW) to meet the waste acceptance criteria for LERF and 200 Area ETF. As such, the waste is also ensured to be compatible with equipment at the facility. This modification is not proposing any changes to the waste acceptance criteria.

**I-4: ANONYMOUS ANONYMOUS**

**Comment I-4-1**

Ecology has expressed intent to approve construction of an ETF Brine loadout system, which DOE wants to build without having established a disposal path ("loadout to nowhere"). This creates an opportunity for speculative accumulation, unknown future doses to workers, and potential for future spills.

**Response to I-4-1**

Permit condition III.3.J.10 requires the Permittees to provide to Ecology information demonstrating a treatment, storage, or disposal pathway has been identified prior to operating the brine loadout system. This prevents speculative accumulation.

**Comment I-4-2**

I could not find a table with the range of anticipated concentrations of chemicals or isotopes for the brine. Yet the powder made from this brine was previously determined to be a significant source of doses in the performance assessment for the IDF (resulting in a desire for grouted waste).

**Response to I-4-2**

Prior to wastewater acceptance at LERF and 200 Area ETF, a generator must provide a waste profile with supporting knowledge, data, and documentation. A completed and adequate waste profile is evaluated against the LERF and 200 Area ETF waste acceptance criteria provided in Addendum B, Waste Analysis Plan, to determine whether an aqueous waste stream is treatable. Depending on the source of the treatment campaign, powder or brine generated from the secondary treatment train may require additional treatment (grout) to meet RCRA Land disposal Restrictions (LDRs), and waste acceptance criteria for the RCRA disposal facility [e.g., Integrated Disposal Facility (IDF)].

Though information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 RCW. [Reference Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste]. Ecology's goal of protecting
human health and the environment coordinates with the Department of Energy's goal of protecting its employees through ALARA practices.

**Comment I-4-3**

What are the concentration and possession limits for Tc-99, C-14 and I-129 in brine at ETF?

**Response to I-4-3**

Technetium-99, Carbon-14, and Iodine-129 are radionuclides and are, therefore, not within Ecology's regulatory authority. Though information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 RCW [Reference: Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste]. Ecology's goal of protecting human health and the environment coordinates with the Department of Energy's goal of protecting its employees through ALARA practices.

**Comment I-4-4**

What are the brine concentrations and possession limits for hazardous chemicals?

**Response to I-4-4**

The brine concentrations and possession limits for hazardous chemicals are managed by the waste acceptance process. Prior to wastewater acceptance at LERF and 200 Area ETF, a generator must provide a waste profile with supporting knowledge, data, and documentation. A completed and adequate waste profile is evaluated against the LERF and 200 Area ETF waste acceptance criteria provided in Addendum B, Waste Analysis Plan to determine whether an aqueous waste stream is treatable. Waste that cannot be treated at LERF and 200 Area ETF is not accepted.

A review of the current wastes being treated at ETF shows that organic constituents are only present in the brine in trace amounts because they are removed by the Main Treatment Train and the Evaporator. All of the RCRA hazardous inorganic constituents are likely to be present at concentrations below 0.1 weight percent. The most prevalent at this time are fluoride, barium, chromium, nickel, and vanadium.

**Comment I-4-5**

The only mention of Tc-99 I found was in two old documents. The Design Integrity Assessment Report, W-519-IAR-Design Rev 0, dated March 26, 2001, had bounding curies per liter for the WTP feed to the LERF, but not in the ETF brine. This was long before the flow sheet changes that occurred with the installation of the WTP/DFLAW/EMF arrangement. Performance Specification W-519-Pl is similarly out of date - since it was published in 2002.

**Response to I-4-5**

Technetium-99 is a radionuclide and, therefore, not within Ecology's regulatory authority. Though information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such
components under the authority of this permit or Chapter 70.105 RCW [Reference: Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste]. Ecology's goal of protecting human health and the environment coordinates with the Department of Energy's goal of protecting its employees through ALARA practices.

**Comment I-4-6**

What is the total amount of Tc-99 to be accumulated in the new storage area in totes?

**Response to I-4-6**

Technetium-99 is a radionuclide and, therefore, not within Ecology's regulatory authority. Though information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 RCW [Reference: Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste]. Ecology's goal of protecting human health and the environment coordinates with the Department of Energy's goal of protecting its employees through ALARA practices.

**Comment I-4-7**

What is the service life of a tote? Are the totes DOT approved for commercial over the road transport? What is the DOT container code for the totes?

**Response to I-4-7**

The Department of Transportation (DOT) regulations do not specify requirements limiting the service life of the totes. The totes will meet the DOT requirements for commercial road transport. The plastic totes are designated by the manufacturer as a UN31H2 container for Packing Group II and III materials per 49 CFR 178, Subpart N, "IBC Performance-Oriented Standards." The stainless steel totes are "certified UN31A for the transportation of packing groups II & III hazardous liquid chemicals as authorized by Title 49 CFR” per the product's cut sheet.

**Comment I-4-8**

The ETF Permit Capacity Calculation (CHPRC-01900 Rev 05, page 26) shows a total volume per tote of 6.6 ft³ (which is closer to the size of a 55 gal drum). The introductory material states that there can be a total of 43 totes, based on space available. At 6.6 cubic feet per tote, the Permit Capacity calculation indicates the total liquids that could accumulate are 6.6 ft³ x 43 x 7.48052 gal/ft³ = 2,122 gallons. It appears this value is contradicted by the Addendum C process information, which states that the totes can contain 260 to 330 gallons each. At 43, totes, the total liquid volume is 14,190 gallons.

**Response to I-4-8**

Please refer to the description of the calculation purpose in the box at the start of the calculation on page 25 (CHPRC-01900 Rev 05.). This is a secondary containment volume calculation; and is not a total tote container volume calculation. The 0.5 foot berm that encompasses the 2025E Container Storage Area is the maximum depth of the secondary containment offered for that
area. Therefore, only the lower 0.5 feet of the tote is considered as occupying the available secondary containment for the displacement calculation. This value is subtracted from the overall containment volume of the 2025E Container Storage Area. Although the value provided for "tote volume" in CHPRC-01900 may be misleading, it is accurate for the purposes of calculating secondary containment capacity.

Comment I-4-9

How many curies of Tc-99, C-14, I-129, respectively, are stored in 14,190 gallons?

Response to I-4-9

Technetium-99, Carbon-14, and Iodine-129 are radionuclides and, therefore, not within Ecology's regulatory authority. Though information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 RCW [Reference: Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste]. Ecology's goal of protecting human health and the environment coordinates with the Department of Energy's goal of protecting its employees through ALARA practices.

Comment I-4-10

How many kg of hazardous chemicals are stored in 14,190 gallons?

Response to I-4-10

The composition of each source waste differs, so the amount of hazardous chemicals stored is dependent on the source of the treatment campaign. Please see the response to comment I-4-4.

Comment I-4-11

How much brine will be produced over the life of the WTP project? How many gallons of ETF brine are produced per gallon of Low Activity Waste Feed to WTP?

Response to I-4-11

The total volume of brine to be produced over the life of the WTP project is not known at this time. The ETF process operates at a brine production ratio range of 0.015 (gal brine/gal feed) to 0.001 (gal brine/gal feed) depending on many factors that are evaluated for each process campaign. WTP DFLAW feed is expected to run toward the higher end of the brine ratio. As WTP operates and information that reflects on the volume of brine produced becomes available, Ecology will request that the Permittees update the permit via permit modification in accordance with WAC 173-303-830.

Comment I-4-12

My concern is that the unknown destination for the brine will turn out to be the Perma-Fix facility inside the city limits of Richland, spreading the waste and risk further than needed, and involving a facility with an expired permit. DOE just can't seem to actually dispose of tank type waste - but prompt disposal is exactly what is needed. The waste should be touched once, to stabilize it, and then it should be disposed. Not shuffled around in an endless loop of interim liquid storage and handoff steps.
Response to I-4-12

Secondary waste generated from the retrieval and treatment of tank waste is expected to go to the Integrated Disposal Facility (IDF) for disposal. The IDF permit is currently being drafted and will offer a disposal pathway for the ETF brine waste. At this time, the ETF brine waste has not been evaluated or approved for shipment to the Perma-Fix facility for further management or treatment.

B-1: WASHINGTON RIVER PROTECTION SOLUTIONS, LLC,

Comment B-1-1

Fact Sheet, pg. 4, Section 1.0: "Upon approval and issuance of this permit modification the LERF and 200 Area ETF will be authorized to ..., operate the Load-In Station filter drain sump tank 59A-TK-2,..." The current LERF and 200 Area Permit, Section C.4.3.1.2, Load-In Station Tank Secondary Containment describes the filter system, which describes the existing filter drain sump tank 59A-TK-2 as ancillary equipment. This permit modification is only reclassifying the filter drain sump tank 59A-TK-2 as a tank. As such, the permit already authorizes operation of the Load-In Station filter drain sump tank 59A-TK-2.

Response to B-1-1

Thank you for your comment. The Fact Sheet will not be updated in response to public comment, however Ecology agrees with the commenter's statement. Tank 59A-TK-2 existed and operated prior to this permit modification, the purpose of which was to identify the tank as a dangerous waste management unit and not as ancillary equipment.

Comment B-1-2

Fact Sheet, pg 6, Section 4.0: "incorporates an existing Filter Drain Sump Tank (59A-TK-2) into the permit" and "...authorize...operate the Load-In Station filter drain sump tank 59A-TK-2..." The current LERF and 200 Area Permit, Section C.4.3.1.2, Load-In Station Tank Secondary Containment describes the filter system, which describes the existing filter drain sump tank 59A-TK-2 as ancillary equipment. This permit modification is only reclassifying the filter drain sump tank 59A-TK-2 as a tank. As such, the permit already authorizes operation of the Load-In Station filter drain sump tank 59A-TK-2.

Response to B-1-2

The Fact Sheet will not be updated in response to public comment, however Ecology agrees with the commenter's statement. Tank 59A-TK-2 existed and operated prior to this permit modification, the purpose of which was to identify the tank as a dangerous waste management unit and not as ancillary equipment.

Comment B-1-3

Permit Condition III.3.J.2.a, pg. Conditions.7: Correct LERF Catch Basin nomenclature, change "242-AL" to "242AL-42".

Response to B-1-3

The requested change has been performed to the text. Although not requested via comment, this change was also performed to Permit Condition III.3.J.2 for consistency.
Comment B-1-4
Permit Condition III.3.J.2.b, pg. Conditions.7: Correct LERF Catch Basin nomenclature, change "242-AL" to "242AL-42".

Response to B-1-4
The requested change has been performed to the text.

Comment B-1-5
Permit Condition III.3.J.2.c, pg. Conditions.7: Correct LERF Catch Basin nomenclature, change "242-AL" to "242AL-42".

Response to B-1-5
The requested change has been performed to the text.

Comment B-1-6

Response to B-1-6
The requested change has been performed to the text.

Comment B-1-7
Permit Condition III.3.J.4, pg. Conditions.7: Correct LERF Catch Basin nomenclature, change "242-AL" to "242AL-42".

Response to B-1-7
The requested change has been performed to the text.

Comment B-1-8

Response to B-1-8
This permit condition is satisfied through transmittal of letter 19-ECD-0083 on January 7, 2020. The condition has been removed as requested.

Comment B-1-9
Permit Condition III.3.J.12, pg. Conditions.8, lines 20-21: Revise permit condition to read, "The waste collected by the brine loadout system must meet land disposal restriction requirements as specified in Permit Condition II.S and the Hanford Federal Facility Agreement and Consent Order when treated for disposal"

Response to B-1-9
Without further clarification on the basis for this request, Ecology is not comfortable performing the requested change to the permit condition.
Comment B-1-10
Addendum C, Section C.1, lines 6 and 8: Correct LERF Catch Basin nomenclature, change "242-AL-42" to "242AL-42"

Response to B-1-10
The requested change has been performed to the text.

Comment B-1-11
Addendum C, pg. C.20, line 38: Change "260 to 330 gallons" to "260 to 350 gallons".

Response to B-1-11
The requested change will not be performed at this time. This change may be performed through a subsequent Class 1 prime permit modification, along with updating required supplemental information such as CHPRC-01900.

Comment B-1-12
Addendum C, pg. C.27, line 24: Description should address floor slope in accordance with WAC 173-303-640(4)(b)(iv). After "building 2025ED." add, "The 2025ED Load-In Station is sloped to drain to the Load-In Station tank secondary containment pit."

Response to B-1-12
The requested change has been performed to the text. However, we added clarification that the floor of the Load-In Station is sloped. The sentence now reads: "The 2025ED Load-In Station floor is sloped to drain to the Load-In Station tank secondary containment pit."

Comment B-1-13
Addendum C, pg. C.50, line 36. Change "form" to "from".

Response to B-1-13
The requested change has been performed to the text.

Comment B-1-14
Addendum C, pg. C.62, Table C-7: Filter drain sump tanks 59A-TK-2/59A-TK-3, Connection column, change "Flanged" to "Welded".

Response to B-1-14
The requested change has been performed to the text.

Comment B-1-15
Addendum I, pg. I.6, line 23: Delete "solidified" because the sentence describes secondary waste to include "liquid from the brine loadout system".

Response to B-1-15
The requested change has been performed to the text.

Comment B-1-16
Addendum I, pg. I.6, line 32: Delete "Following the inspections, an inspection datasheet is signed and dated by the inspector and supervisor." This information is addressed in Section I.1.3,
Inspection Log. The use of the term "inspection datasheet" is not consistent with Section I.1.3, pg. I.9, lines 23-27.

**Response to B-1-16**

This requested change will not be made to Addendum I, Inspection Plan, as the term "data sheet" is used in Section I.1.3 as an example of an inspection log. This item may be addressed through Hanford Permit Revision 9 workshops.
Appendix A: Copies of all public notices

Public notices for this comment period:

- Public notice (focus sheet)
- Classified advertisement in the *Tri-City Herald*
- Notice sent to the Hanford-Info email list
- Event posted on Washington Department of Ecology – Hanford’s Facebook and Twitter pages
Public comment invited

The Washington State Department of Ecology (Ecology) is proposing a change to the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, Revision 8c. This change affects the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility.

The permittees are:
- U.S Department of Energy
  Office of River Protection
  P.O Box 450, H-6-60
  Richland, WA 99352

- Washington River Protection Solutions
  P.O Box 850 MSIN H3-01
  Richland, WA 99352

We invite you to comment on the proposed Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) Class 3 Permit Modification. The public comment period is from February 3 through March 19, 2020.

This proposal includes changes to multiple sections of the permit, including:
- Unit-Specific Permit Conditions
- Addendum A, Part A Form
- Addendum B, Waste Analysis Plan
- Addendum C, Process Information
- Addendum F, Preparedness and Prevention
- Addendum H, Closure Plan
- Addendum I, Inspection Requirements
Background

The Hanford Site occupies 580 square miles in southeastern Washington State. Beginning in 1943, the site produced plutonium for the nation’s defense program. Plutonium production ceased in the late 1980s. Today, waste management and environmental cleanup are the primary missions at Hanford.

The 200 Area ETF is located near the center of the Hanford Site in the 200 East Area (see map on page 3).

The LERF and 200 Area ETF receive process wastewater from the 242-A Evaporator and other Hanford remediation and waste management activities. Wastewater from the LERF is pumped to the 200 Area ETF for treatment to remove contaminants.


Why this permit change matters

The LERF and 200 Area ETF play a vital role in supporting Hanford's Direct-Feed Low-Activity Waste program (DFLAW), which is an important part of the Hanford cleanup process. The proposed permit modifications will allow the permittees to connect a waste transfer line from Effluent Management Facility to LERF and to make improvements to the 200 Area ETF so that it can support tank waste treatment and the DFLAW mission.

Overview of changes

The improvements include:

- Adding a primary transfer line from the Waste Treatment and Immobilization Plant (WTP) to LERF Basin 42.
- Installing a brine waste load-out system inside the 200 Area ETF.
- Permitting and installation of filter drain sump tanks in the 200 Area ETF Load-in Station.

Modifications to the permit addenda include:

- Revising the LERF and 200 Area ETF Operating Unit Group boundary to include the WTP to LERF Basin 42 primary transfer line.
- Facility improvements to accommodate increased wastewater volume in support of the DFLAW project.
- Leak detection, closure, and inspection requirements for the new equipment.
An electronic leak detection system will be installed on the primary transfer line from WTP to the LERF Basin 42. A sight glass will also be installed at the LERF Basin 42 catch basin.

The Brine Load-out System will be located within building 2025E. Brine waste from the Brine Load-out System will be transferred into containers called totes.

The existing filter drain sump tank is located in Building 2025ED, Load-in Station, which is also where the new filter drain sump tank will be installed. Filter drain sump tank 59-A-TK-2 is located in the east bay of 2025ED, and a similar 45-gallon sump tank, 59A-TK-3 will be installed in the west bay.

**Reviewing the proposed changes**

Ecology invites you to review and comment on this proposed Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility permit modification. See Page 1 for comment period dates and information on how to submit comments.

Copies of the application for the proposed permit and supporting documentation will be available during the public comment period online at Ecology’s website at [https://www.ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods](https://www.ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods). The documents will also be available at the Hanford Public Information Repositories listed on the last page.

Ecology will consider and respond to all comments received during the public comment period. We will document our responses and issue a response to comments document when we make our final permitting decision.
## Hanford’s Information Repositories and Document Review Locations

**Washington**

**Richland**
Ecology Nuclear Waste Program  
Resource Center  
3100 Port of Benton Blvd.  
Richland, WA 99354  
509-372-7950

U.S. Department of Energy  
Administrative Record  
2440 Stevens Drive, Room 1101  
Richland, WA 99354  
509-376-2530

Washington State University Tri-Cities  
Department of Energy Reading Room  
2770 Crimson Way, Room 101L  
Richland, WA 99354  
509-375-7443

**Seattle**
University of Washington  
Suzzallo Library  
P.O. Box 352900  
Seattle, WA 98195  
206-543-5597

**Spokane**
Gonzaga University  
Foley Center  
502 E Boone Avenue  
Spokane, WA 99258  
509-313-6110

**Oregon**

**Portland**
Portland State University  
Millar Library  
1875 SW Park Avenue  
Portland, OR 97207  
503-725-4542
30-Day Advance Notice for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility permit modification public comment period

The Washington State Department of Ecology is providing notification of a 45-day public comment period starting early to mid-February 2020. This comment period will address changes to multiple sections of the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, Revision 8c in the portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (EFT). The Permittees are U.S Department of Energy and Washington River Protection Solutions. The LERF/ETF is located on the Hanford Site in southeastern Washington.

What Changes are Being Proposed?

This comment period will address proposed modifications that will allow the permittee to connect a waste transfer line from the Effluent Management Facility to the LERF. It will also make improvements to the ETF so that it can support tank waste treatment and the direct feed low activity waste mission.

Public Hearing

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden
Hanford@ecy.wa.gov
509-372-7950
Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Permit Modification Public Comment Period Notification

The Washington State Department of Ecology is providing notification of a 45-day public comment period starting February 3 to March 19, 2020. This comment period will address proposed modifications to the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF). The Permittees are U.S. Department of Energy, Office of River Protection and Washington River Protection Solutions. LERF/ETF is located on the Hanford Site in southeastern Washington.

What Changes are Being Proposed?

Modifications to the permit addenda include:

- Revising the LERF and 200 Area ETF Operating Unit Group boundary to include the Waste Treatment and Immobilization Plant (WTP) to LERF Basin 42 primary transfer line.
- Facility improvements to accommodate increased wastewater volume in support of the DFLAW project.
- Leak detection, closure, and inspection requirements for the new equipment.

Facility improvements include:

- Adding a primary transfer line from the WTP to LERF Basin 42.
- Installing a brine waste load-out system inside the 200 Area ETF.
- Permitting and installation of filter drain sump tanks in the 200 Area ETF Load-in Station.

An electronic leak detection system will be installed on the primary transfer line from WTP to the LERF Basin 42. A sight glass will also be installed at the LERF Basin 42 catch basin.

The Brine Load-out System will be located within building 2025E. Brine waste from the Brine Load-out System will be transferred into containers called totes.

The existing filter drain sump tank is located in Building 2025ED, Load-in Station, which is also where the new filter drain sump tank will be installed. Filter drain sump tank 59A-TK-2 is located in the east bay of 2025ED, and a similar 45-gallon sump tank, 59A-TK-3 will be installed in the west bay.

How to Comment

Ecology invites you to review and comment on this proposed LERF/ETF Permit Modification. Copies of the proposed modification are located in the Administrative Record and Information Repositories. In addition, the proposed modification is online at https://ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods.

Please submit comments by **March 19, 2020**. Electronic submission (preferred): http://nw.ecology.commentinput.com/?id=76M8A
Mail or hand-deliver to:
Daina McFadden
3100 Port of Benton Blvd
Richland WA 99354
Fax 509-372-7971

Public Hearing
A public hearing is not scheduled, but if there is enough interest, we will consider holding one.
To request a hearing or for more information, contact:
Daina McFadden
Hanford@ecy.wa.gov
509-372-7950

Visit us on the web and follow our news and social media.

Subscribe or Unsubscribe
We're seeking your comments! A new public comment period began today held by our agency, regarding the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility on the Hanford Site.

Check out the details about the comment period and provide your input here: https://ecology.wa.gov/.../Nuclear-was.../Public-comment-periods.

We're holding a comment period, starting today, regarding the Liquid Effluent Retention Facility & the Effluent Treatment Facility at #Hanford. Read more & get your comments in by March 19 here: ecology.wa.gov/Waste-Toxics/N... @EcologyWA @EPAnorthwest @HanfordSite @RiverProtection