



Response to Comments
Direct Feed Low Activity Waste
Operating Permit
February 10 to March 26, 2020

*Summary of a public comment period
and responses to comments*

June 2020

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Publication and Contact Information

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Response to Comments

DFLAW Operating Permit
February 10 to March 26, 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.)

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:	Direct Feed Low Activity Waste Operating Permit, February 10 – March 26, 2020
Permit:	<i>Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit Group 10 (WA7890008967), Waste Treatment and Immobilization Plant</i>
Permittee(s):	U.S. Department of Energy – Office of River Protection and Bechtel National Inc.
Original issuance date:	September 27, 1994
Effective date:	July 24, 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>.

Reasons for issuing the permit

Ecology proposed this Class 3 permit modification to the *Hanford Site-Wide Permit Revision 8C*. The modification affects the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Waste Treatment and Immobilization Plant, located in Part III, Operating Unit Group 10.

The Waste Treatment and Immobilization Plant (WTP) will immobilize in glass (vitrify) 56-million gallons of dangerous radioactive and chemical waste currently stored in 177 underground storage tanks at Hanford.

The changes to the permit provide operating details to support the Direct Feed Low-Activity Waste (DFLAW) configuration for the Low-Activity Waste Facility and Effluent Management Facility, which are part of the WTP.

The proposed modification provides operating details to the following:

- Unit-specific Permit Conditions
- Part A Form
- Chapter 3, Waste Analysis Plan
- Chapter 3A, Waste Analysis Plan for the Baseline Configuration
- Chapter 3B, Quality Assurance Project Plan
- Chapter 3C, Waste Analysis Plan for the DFLAW Configuration
- Chapter 4, Process Information
- Chapter 4E, Low-Activity Waste Facility
- Chapter 4G, Direct feed Low-Activity Waste (Effluent Management Facility)
- Chapter 4I, Balance of Facilities
- Chapter 6, Procedures to Prevent Hazards
- Chapter 6A, Inspection Plan
- Chapter 7, Contingency Plan (Building Emergency Plan)
- Chapter 8, Personnel Training
- Chapter 12, Reporting and Recordkeeping (information incorporated in other chapters and this chapter was deleted)
- Updates to multiple appendices

Public involvement actions

Ecology encouraged public comment on the draft DFLAW Operating Permit during a 45-day, public comment period held February 10 through March 26, 2020.

The following actions were taken to notify the public:

- Mailed a public notice announcing the comment period 1,159 members of the public.
- Distributed copies of the public notice to members of the public at Hanford Advisory Board meetings.
- Placed a public announcement legal classified notice was placed in the *Tri-City Herald* on February 9, 2020.

Response to Comments
DFLAW Operating Permit

- Emailed a notice announcing the start of the comment period to the [Hanford-Info email list](#), which has 1348 recipients.
- Posted the comment period as an event on the Washington Department of Ecology – Hanford Facebook and Twitter pages.

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
- Statement of Basis for the proposed DFLAW Operating Permit Modification
- Draft DFLAW Operating Permit Modification

The following public notices for this comment period are in [Appendix A](#) of this document:

- Public notice
- 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 DFLAW Operating Permit modification. The comments and responses are in [Attachment 1](#).

Commenter	Organization
Mike Conlan	Citizen
Judy Pigott	Citizen
Anonymous	Citizen

Attachment 1: Comments and responses

Description of comments:

Ecology accepted comments from February 10 through March 26, 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: MIKE CONLAN

Comment I-1-1

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-1-1

Ecology is working to ensure that long-term storage, treatment, and disposal of the waste is protective of human health and the environment. The proposed permit changes are not to allow new waste, but to better manage the waste already at Hanford. Single-shell tanks are not in the scope of this comment period. Ecology does agree the tanks pose a threat. We believe a better approach to addressing it is to transfer waste from the single shell tanks to the double-shell tanks to prepare for eventual treatment in the Waste Treatment Plant. Stopping any potential nuclear waste from impacting the Columbia River is not within the scope of the WTP Permit. Prevention of groundwater and surface water impacts are addressed in operations associated with other units.

I-2: JUDY PIGOTT

Comment I-2-1

It is my opinion, informed by having followed development of cleaning up Hanford Nuclear site for a long time, by the material you've sent out and by conversations with Hanford Challenge, that the modification of the permit should be denied. Until and unless the requirements for safety to the environment and to workers have been met, there will be an unacceptable risk to us all. Safe & effective disposal, if done well, will minimize the risk to humans and the environment. As the modification is currently written, these safety issues are not adequately addressed.

Response to I-2-1

Ecology expects the Permittees to ensure safe operations of the WTP facilities to protect human health and the environment. This permit modification will help to ensure that the facility is operated in a safe manner and that the waste will be treated in a way that is protective of human health and the environment.

I-3: ANONYMOUS CITIZEN

Comment I-3-1

I noticed the System Logic Description for the Low-Activity Waste Facility - LAW Stack Discharge (SDJ) System (SDJ) [24590-LAW-PER-J-19-001, Rev 0] does not include monitoring for ammonia. However, ammonia is present in the waste and ammonia is also added to the waste off-gas stream in the NOx destruction equipment. There is always excess ammonia in the

discharge from selective catalytic reduction, and an upset could make this a large concentration. Ammonia is a highly hazardous chemical. Why was an ammonia monitor omitted?

Response to I-3-1

Chapter 3A/3B/3C WTP Waste Analysis Plan and the Data Quality Objectives identify the necessary analytical sampling methods. Tank waste being sent to WTP for treatment will be required to meet the WTP Waste Acceptance Criteria. Sampling will occur at the tank which is the ultimate feed to LAW. Each batch of waste to be sent to WTP will be required to be sampled prior to transfer.

The LAW Secondary Offgas/Vessel Vent Process (LVP) system monitoring is described in detail in 24590-LAW-3ZD-LOP-00001, LAW Primary Offgas Process (LOP) and LAW Secondary Offgas/Vessel Vent Process (LVP) System Design Description. The Thermal Catalytic Oxidizer/Selective Catalytic Reducer contains an ammonia analyzer to indicate an ammonia slip in the outlet, and interlocks are in place to prevent an upset situation. After passing through the TCO/SCR, the LVP system offgas passes through a caustic scrubber, where contaminants in the offgas stream are absorbed into the liquid stream through interaction of the gas, liquid, and packing media. Ammonia is highly soluble in water and is removed from the exhaust stream by the caustic scrubber prior to being discharged from the LAW stack. The likelihood that the LAW exhaust stream contains ammonia is minimal, therefore, the LAW Stack Discharge (SDJ) System does not monitor for ammonia content.

Comment I-3-2

The System Logic Description for the Low-Activity Waste Facility - LAW Stack Discharge (SDJ) System (SDJ) [24590-LAW-PER-J-19-001, Rev 0] states that information on radionuclides is provided for process description purposes. But there is no information on radionuclides provided at all. Is there a monitor for tritium? For carbon-14? Alpha? Beta/Gamma? What monitoring and logic are performed for the dose-sensitive isotopes?

Response to I-3-2

The Hanford Dangerous Waste Permit regulates treatment, storage, and disposal of dangerous waste. Radioactive air emissions are permitted under the Washington State Department of Health and are not part of this permit modification.

Comment I-3-3

The System Logic Description for the Low-Activity Waste Facility - LAW Stack Discharge (SDJ) System (SDJ) [24590-LAW-PER-J-19-001, Rev 0] omits monitoring for the EMF stack. The EMF processes ammonia bearing waste. Is there a justification for not having a system logic or monitoring for EMF? DFLAW cannot operate without the EMF.

Response to I-3-3

The EMF Vessel Vent Process System (DVP) removes and treats the gases that fill the headspace of EMF process vessels. The LAW effluent recycle to the EMF is not expected to contain a significant concentration of ammonia. In addition, due to the high vapor content of the EMF offgas, any ammonia present in the vapor would bond with the water to form ammonium hydroxide. The exhaust air is treated through a preheater and HEPA filters prior to moving downstream to tie into the LAW effluent utility building exhaust duct where it is discharged

through the EMF stack. The LAW effluent utility building contains the EMF buildings' ventilation (HVAC) system and does not contain equipment that manages dangerous or mixed waste. The EMF discharge stack is separate and does not tie into the LAW discharge stack, so 24590-LAW-PER-J-19-001, System Logic Description for the Low-Activity Waste Facility - LAW Stack Discharge (SDJ) System does not contain EMF discharge stack monitoring information.

Comment I-3-4

In the Response to Comments, Ecology committed to taking the necessary steps to ensure the permittees do not generate orphan waste. However, in order to feed DFLAW, the tank side cesium removal system will generate orphan, Cs-137 loaded ion exchange columns. Ecology should not approve this permit modification until there is a fully funded pathway for loaded ion-exchange column disposal. These decisions are inextricably linked and the ion exchange columns should not be ignored just because they are not part of this particular permit modification. Hanford has one dangerous waste permit, and the parts must work together.

Response to I-3-4

Permitting of the Low-Activity Waste Pretreatment System (LAWPS) Operating Unit Group is outside of the scope of this Permit modification. Issues associated with the generation and ultimate disposal of the Ion Exchange Columns (IXC) will be addressed within the permit for the LAWPS Operating Unit Group (OUG-1) The Permittees have provided technical information about the liquid waste stream that will be generated by the Tank Side Cesium Removal (TSCR) system (which is an individual Dangerous Waste Management Unit within the LAWPS OUG) and verified that the expected waste stream will meet WTP's waste acceptance criteria. Ecology is taking the necessary steps to ensure that the Permittees do not generate an orphan waste. The current, agreed to final disposition pathway for the IXC media is to remove it and process it through the High Level Waste Facility at the Waste Treatment and Immobilization Plant as the last campaign for that facility.

Comment I-3-5

In the response to comments Ecology committed to sustained work to ensure the items in the LAW Design and Operability Report are appropriately managed and brought to closure. In a related action, Congress, in the GAO-IG Act of January 2019, required DOE to provide data on unresolved GAG and IG recommendations and their status as part of the FY 2020 Budget Request. Recommendations were required to be identified by specific name/subject. DOE did not, however, provide the complete data in the FY 2020 Congressional Budget Request, preferring to list only the report names, not the issues. See Volume 2, page 273 of the DOE Budget Justification¹. However, GAO provides a web page with individual open recommendations. Some of the unresolved recommendations apply to DFLAW at WTP. In particular, GAO lists unresolved recommendations² as:

Environmental Liabilities: DOE Would Benefit from Incorporating Risk-Informed Decision-Making into Its Cleanup Policy. Open Recommendations are: "The Secretary of Energy should direct DOE's Office of Environmental Management to revise EM's 2017 cleanup policy to establish how the EM program and DOE sites should apply the essential elements of a risk-informed decision-making framework into their current decision-making requirements and guidance. (Recommendation 1)" "The Secretary of Energy should direct DOE's Office of

Environmental Management, in the development of a program management plan, to incorporate essential elements of risk-informed decision-making. (Recommendation 2) " Hanford Waste Treatment Plant: DOE Needs to Take Further Actions to Address Weaknesses in Its Quality Assurance Program. Open Recommendations are: "The Secretary of Energy should direct ORP to require the WTP contractor to determine the full extent to which [quality assurance] problems exist in all WTP structures, systems, and components." "The Secretary of Energy should direct ORP to use its authorities to stop work in areas where quality assurance problems are recurring until ORP's Quality Assurance Division can verify that the problems are corrected and will not recur. " Of note is that GAO included the full extent of condition for all LAW facilities, not just the 13 systems that were reviewed in the LAW Design and Operability Report. There are 13 more LAW systems that were not reviewed in the LAW D&O report that require review before startup. Closure actions from the existing LAW D&O Report have also not been verified as effective. I would appreciate if Ecology would verify that GAO's WTP related recommendations including quality assurance and risk-based decision making process are fully resolved to GAO's satisfaction (not just the satisfaction of the DOE FPD). This should be done before allowing operations to begin for DFLAW. DOE should evaluate, before startup, the risks incurred by adding the EMF, by not processing HEW, by piling up cesium loaded ion exchange columns, and by making potential new bottlenecks out of the ETF brine and EMF bottoms. I would appreciate if Ecology will also verify that WTP related recommendations of the DOE OIG are resolved, and corrective actions completed, before allowing operations for DFLAW. The DOE OIG's detailed open recommendations for DOE have been hidden from the public, but were required to be listed by law.

¹ See <https://www.energy.gov/sites/prod/files/2019/04/f61/doe-fv2020-budget-volume-2.pdf>.

² See <https://www.gao.gov/reports-testimonies/recommendationsdatabase?priority=all&topic=all&agency=Department%20of%20Energy,äÇagency=ail>

Response to I-3-5

Ecology provides environmental regulatory oversight of construction and eventual operations for treatment and storage of dangerous waste at the WTP. Ecology ensures that the agency is apprised of WTP progress and issues by continuing an open dialogue with project personnel, and by maintaining a site presence to monitor that construction activities are consistent with permit documents. Ecology remains apprised of open issues through resolution on the WTP Project. Ecology continues to communicate with Energy to ensure that these items noted in LAW Design and Operability Report, Table B-1, "Crosswalk of System Vulnerabilities to Vulnerability Category", are appropriately managed.

In particular, Ecology is focused on the categories of "Newly Identified", "Contract Change Required", and "Validity Requires Further Review" for dangerous waste permit affecting equipment and systems.

It is Ecology's intention to further review with Energy each of these items to determine current status and further need for updates and closure. The review of the LAW Design and Operability Report will continue until the commissioning phase of the Low Activity Waste Facility to ensure

that any items that may take significant effort can be closed, and to ensure that any new issues can also be brought to appropriate closure.

Comment I-3-6

Drawings 24590-LAW-M6-ASX-00001002-001 and 24590-LAW-M6-ASX-00002002- 001 have notes that say the ASX Sample System Sprinkler Manifold will not be used and has been abandoned in place. Why?

Response to I-3-6

Glovebox design standards were used to support the design of the ASX since specific standards for autosamplers did not exist. Fire Protection Engineering determined that even though the ASX system is referred to as a glovebox and has used glovebox standards in its design, it is not considered to be a glovebox from a fire protection standpoint and does not need to be protected with automatic sprinklers located inside the enclosure, see CCN 280627 – Memo: ASX Glovebox Fire Protection Requirements.

Comment I-3-7

Drawings 24590-LAW-M6-ASX-00001002-001 and 24590-LAW-M6-ASX-00002002- 001 have notes that say that "Bechtel lines" will be free draining unless otherwise noted. Are there non-Bechtel lines that are not free draining? Could those lines accumulate liquids/solids/doses?

Response to I-3-7

There will be no accumulation of liquids, solids or doses. The LAW ASX Datasheet: 24590-LAW-M2D-ASX-00001 explains piping and drainpipe interfaces, outlining the slope requirements to prevent from accumulation. "Bechtel lines" is a designation for Bechtel and their pipe designers and vendors.

Comment I-3-8

The IQRPE report contains about 9 references to a drawing that is at Revision A (e.g., floor slab design). All letter revisions should be made final revisions, at least Rev 0, and checked to see if the update changes the IQPRE results, before the facility is allowed to operate.

Response to I-3-8

Letter designations are given to subcontractor submittals and do not indicate draft or incomplete information. Any documentation reviewed by the IQRPE is complete at the time the IQRPE review for certification is made, and before the reports are submitted to Ecology for approval, they are reviewed for accuracy and contain all required and updated facility documentation.

Comment I-3-9

The Statement of Basis states that the Direct Feed LAW configuration, will allow mixed waste to be transferred directly from the Low-Activity Waste Pretreatment System (LAWPS) to the LAW Facility, bypassing the PT Facility. Ecology should therefore ensure that the LAWPS processes are safe. For example. Letter 19-ECD-0079 (October 31, 2019 Supplemental LAWPS Design Information) contains additional information for the LAWPS process. The attachment to this letter says that in the first phase of LAWPS the tank side cesium removal unit processes waste at a nominal flow of 5 gallons per minute, but to do this, actually circulates waste around and around through hose-in-hose transfer lines in and out of a DST at a rate of about 56.8 gpm (see

page 3258 of the file, H-14-111242). This is a continuous stream of high level waste going in and out of a DST in hose in hose lines. The above ground hose in hose lines may not have been designed for the constant use and wear. Ecology should check to see if an adequate risk evaluation was performed. Every time DOE plays with the waste or adds new steps, new exposures occur for the operators, and potential new leak paths are established. It does not make sense to excuse these items because they are "not part of the current permit modification." Systems Engineering and quality assurance principles require that the integrated interfaces of the designs and the parts of the permit, be evaluated for unintended risks.

Response to I-3-9

The Department of Energy provides Ecology with information on progress of these facilities to ensure that both LAWPS and WTP are available to begin safe treatment of tank waste.

In the Direct Feed LAW configuration, tank waste supernatant will be held in 241-AP-107 prior to treatment at the Tank-Side Cesium Removal (TSCR) unit. The waste treated at TSCR will be aqueous phase liquids that meet the waste acceptance criteria for treatment at TSCR. TSCR is designed to remove cesium and particulates from the Low-Activity Waste (LAW) stream to allow the waste to be vitrified at the LAW Facility. Supernatant waste processed through TSCR will be stored in 241-AP-106 before being transferred via hard-walled waste transfer lines to the LAW Facility for vitrification. Hose-in-hose transfer lines (HIHTLs) will be employed for waste transfers between the DST Tank Farm and the TSCR unit. As discussed in more detail in RPP-14859, Specification for Hose-in-Hose Transfer Lines and Hose Jumpers, the HIHTLs are designed conservatively to withstand operational pressures and waste transfer rates that will ensure safety and operability during the service life of the HIHTLs. The HIHTLs will have a 3-year service life, after which time the lines will be replaced with another set of HIHTLs. If TSCR operates beyond the approximate 5-year expected duration, the HIHTLs will be replaced with hard-walled piping.

Please see the Low-Activity Waste Pretreatment System (LAWPS) Operating Unit Group 1 permit modification for further details.

Comment I-3-10

Lastly, DOE has established a flowsheet with a known risk that ETF won't be able to process effluent fast enough, and a known risk that the EMF bottoms could be too corrosive to be processed in the LAW melters. DOE had opportunity to upgrade ETF but failed to do so. DOE had opportunity to make a pilot plant for EMF but failed to do so. Ecology should under no circumstances, allow DOE to operate WTP DFLAW and call it operational, if it requires accumulation of orphan liquid effluents in drums. That is not a successful flow sheet. Ecology should under no circumstances allow DOE to transfer the risk of these liquids into the City of Richland for treatment in the Perma-Fix Plant, which is much closer to the water table than the 200 Areas. Due to "fast track design-build" the WTP has been built as a full-scale R&D project, so that the mistakes made are at full scale and enormous cost. Taxpayers should not have the added burden of importing the consequent hazardous waste products and risks into town.

Response to I-3-10

In the WTP Permit, secondary wastes from WTP are designated for disposal at Hanford 200 Integrated Disposal Facility (IDF) and will not pose a risk to the City of Richland.

Appendix A: Copies of all public notices

Public notices for this comment period:

- Public notice
- 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

DFLAW Operating Permit Modification



Public comment period

Feb. 10 – March 26, 2020

Please submit comments

Electronically (preferred) via:

<http://nw.ecology.commentinput.com/?id=h8CRV>

By U.S. Mail, or hand-delivery:

Daina McFadden
3100 Port of Benton Blvd.
Richland WA 99354

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
509-372-7950
Hanford@ecy.wa.gov

Special accommodations

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6831 or visit <https://ecology.wa.gov/accessibility>.

People with impaired hearing may call Washington Relay Service at 711.

People with speech disability may call TTY at 877-833-6341.

Public comment invited

The Washington State Department of Ecology (Ecology) is proposing a modification to the Hanford Facility Resource Conservation and Recovery Act Permit, Revision 8C. The proposed changes affect the Dangerous Waste Portion for the *Treatment, Storage, and Disposal of Dangerous Waste for the Waste Treatment and Immobilization Plant*, located in Part III, Operating Unit Group 10.

The Waste Treatment Plant (WTP) is located on the Hanford Site in southeastern Washington. The plant will immobilize in glass (vitrify) 56-million gallons of dangerous radioactive and chemical waste currently stored in 177 underground storage tanks at Hanford.

The permittees are:

U.S. Department of Energy, Office of River Protection
P.O. Box 450
Richland, Washington 99352

Bechtel National, Inc.
2435 Stevens Center Place
Richland, Washington 99354

Ecology invites you to comment on the Class 3 Direct Feed Low-Activity Waste (DFLAW) Operating Permit Modification, (8C.2019.1D) February 10 through March 26, 2020.

The proposed modification incorporates operating details to support DFLAW operating configuration for the Low-Activity Waste and Effluent Management Facilities.

Background

The WTP includes multiple facilities: Analytical Laboratory (Lab), Low-Activity Waste (LAW) Facility, High-Level Waste (HLW) Facility, Pretreatment Facility (PTF), Effluent Management Facility (EMF) and Balance of Facilities (BOF).

The WTP will be operated in two processing configurations. For near-term operations, WTP will be operated in the DFLAW configuration requiring the Lab, LAW, and EMF to become operational first to process the low-activity waste from tank farms.

In the DFLAW configuration, the waste is pretreated to remove cesium and solids before the waste is sent to the LAW facility. In this configuration, the pretreated waste will bypass the PTF and be fed directly from the tank farms to the LAW facility. The LAW facility is where the low-activity fraction of the waste will be solidified by vitrification.

The liquid effluents generated in the LAW facility and the Lab are transferred and treated at EMF, which will reduce the effluent volume by evaporation. WTP will later be operated in the baseline configuration when the PTF and the High-Level Waste Facility become operational.

The final step in the WTP phased permitting approach is the development of the operational permits for each facility. The Lab completed this step in 2017 and has an operating permit. This current permit modification provides the operational details for LAW and EMF.

Proposed Changes

This permit modification will add a description of operations to the WTP Dangerous Waste Permit for LAW and EMF. The modification describes operations, provides clarification between the baseline and DFLAW configurations, and adds details to ensure the operating permit is compliant with all dangerous waste regulations. The modification proposes changes to the following:

- Unit-Specific Permit Conditions
- Part A Form
- Chapter 3, Waste Analysis Plan
- Chapter 3A, Waste Analysis Plan for the Baseline Configuration
- Chapter 3B, Quality Assurance Project Plan
- Chapter 3C, Waste Analysis Plan for the DFLAW Configuration
- Chapter 4, Process Information
- Chapter 4E, Low-Activity Waste Facility
- Chapter 4G, Direct Feed Low-Activity Waste (Effluent Management Facility)
- Chapter 4I, Balance of Facilities
- Chapter 6, Procedures to Prevent Hazards
- Chapter 6A, Inspection Plan
- Chapter 7, Building Emergency Plan
- Chapter 8, Personnel Training
- Updates to multiple appendices, including the interim compliance schedules

Supporting information for this modification includes:

- Dangerous Waste Training Plan – Supplemental information developed to meet Washington Administrative Code requirements. This document will be placed in the operating record and will not be included as part of the Dangerous Waste Permit.
- Chapter 12, Reporting and Recordkeeping – This chapter is proposed to be removed from the Dangerous Waste Permit because the information is duplicated in Permit Conditions II.I, Facility Operating Record, and throughout the WTP Permit.

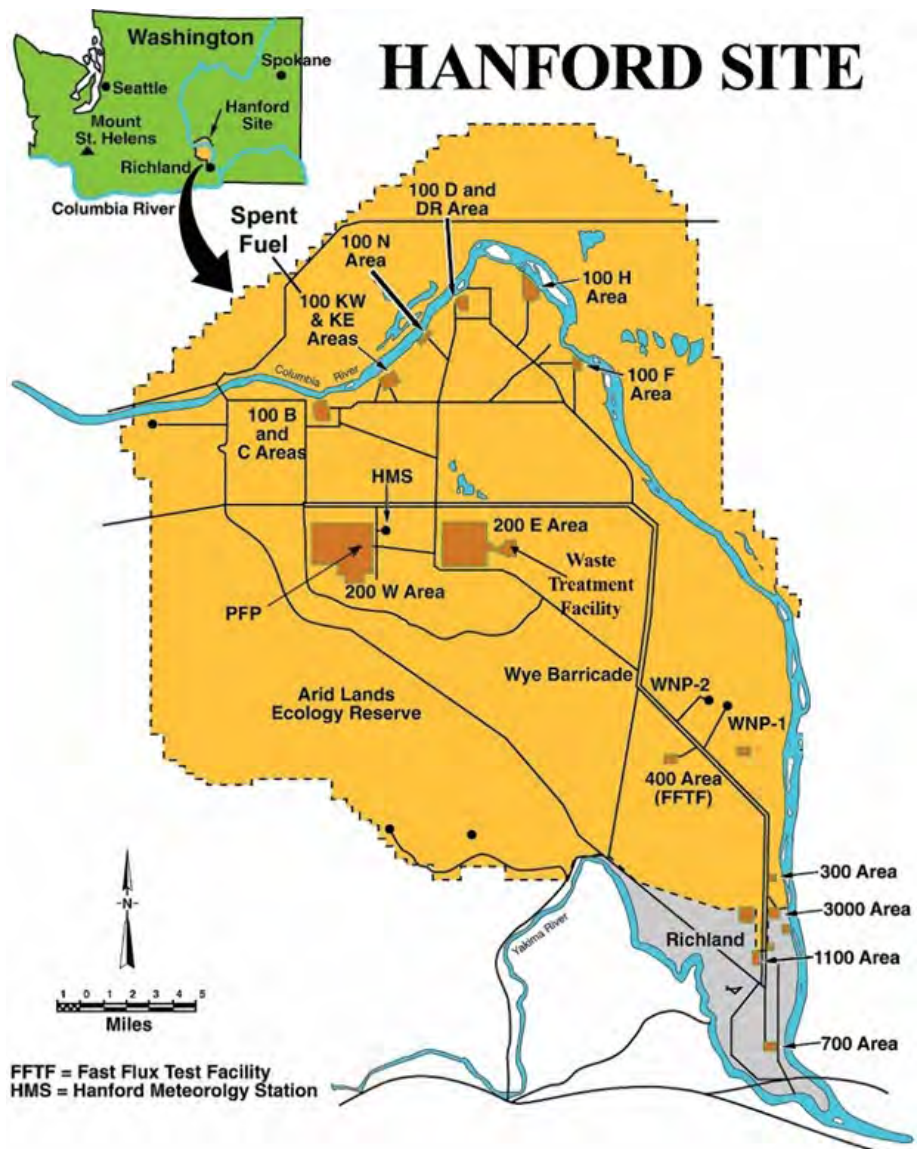
Interim compliance schedule items completed with this permit modification include: LAW-3 through LAW-7, LAW-11, LAW-14, LAW-15, LAW-17, LAW-25, LAW-45, as well as EMF-3 through EMF-7, EMF-11, and EMF-45.

Reviewing the proposed changes

Ecology invites you to review and comment on this proposed DFLAW Operating 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://ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods>. The documents will also be available at the Hanford Public Information Repositories listed on page 4.

Ecology will consider and respond to all significant 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.





DEPARTMENT OF
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State of Washington

Nuclear Waste Program
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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

Public Hearing: The City of Kennebec is holding a public hearing on the proposed amendments to the 2020 budget, addressing appropriations in the Water Fund. Comments may be mailed to the City of Kennebec at 230 W. 5th Avenue, Kennebec, ME 09936. A public hearing will be held on February 14, 2020 at 6:00 p.m. in the City of Kennebec, 230 W. 5th Avenue, Kennebec, ME 09936. A public hearing will be held on February 14, 2020 at 6:00 p.m. in the City of Kennebec, 230 W. 5th Avenue, Kennebec, ME 09936. A public hearing will be held on February 14, 2020 at 6:00 p.m. in the City of Kennebec, 230 W. 5th Avenue, Kennebec, ME 09936.

Final Determination of Regulatory Need for Project Mitigation: The City of Kennebec is holding a public hearing on the proposed amendments to the 2020 budget, addressing appropriations in the Water Fund. Comments may be mailed to the City of Kennebec at 230 W. 5th Avenue, Kennebec, ME 09936. A public hearing will be held on February 14, 2020 at 6:00 p.m. in the City of Kennebec, 230 W. 5th Avenue, Kennebec, ME 09936.

OFFICE OF PUBLIC HEARING - URBAN GROWTH AREA EXPANSION

Public Hearing: The City of Kennebec is holding a public hearing on the proposed amendments to the 2020 budget, addressing appropriations in the Water Fund. Comments may be mailed to the City of Kennebec at 230 W. 5th Avenue, Kennebec, ME 09936. A public hearing will be held on February 14, 2020 at 6:00 p.m. in the City of Kennebec, 230 W. 5th Avenue, Kennebec, ME 09936.

Public Notification: Perma-Pix Northwest, Inc. (PINWA) is providing this public notice regarding the Class 2 permit application for the Dangerous Waste Permit and TSCA Approval No. WAR 0000 10350 for classification and addition to optional requirements for the Interim Status Unit at the Hanford Site. The permit application is available for review and copy by contacting the Department of Ecology at 509-375-1022.

Hanford Emergency Management Plan and Building Emergency Plan permit modification: February 10 through March 25, 2020

The Washington State Department of Ecology (Ecology) invites public comment on proposed modifications to the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Hazardous Waste, Revision 26 (Permit). The changes affect the Hanford Emergency Management Plan, associated facility-specific Building Emergency Plans, and other associated permit files for operating and closing units at the Permit. Ecology invites you to comment on this new modification February 10 through March 25, 2020. The Permittees are: U.S. Department of Energy, Office of River Protection P.O. Box 450 Richland, WA 99352

Ecology determined that additional changes needed to be made to the amendments, the associated Hanford site contingency planning documents, and the Part 1 and 2 Permit Conditions. Ecology issued Letter 15ANWP214, dated December 12, 2014, notifying the Permittees that we would reclassify the permit modification to a Class 3 permit modification. Since 2014, Ecology and the Permittees have worked collaboratively to perform a comprehensive evaluation and review of the Hanford contingency planning documentation.

The Building Emergency Plan for the Waste Treatment Plant (WTP) is not included in this public comment period because it was previously submitted for public comment during the WTP Low-Activity Waste and Effluent Management Facilities Class 3 Public Comment Period that ran from July 1 to August 30, 2019. The Building Emergency Plan for the Integrated Disposal Facility (IDF) is not included in this public comment period because it is currently out for public comment to support the GF Operations Class 3 Permit Modification, which is open for public comment December 15, 2019, through February 14, 2020.

Ecology will consider and respond to all significant comments received during the public comment period. We will document your responses and make a response to comments document when we make our final permitting decision. 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 509-372-7950 or Hanford@ecy.wa.gov

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 509-407-6833 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-633-6343.

PUBLIC NOTIFICATION

Perma-Pix Northwest, Inc. (PINWA) is providing this public notice regarding the Class 2 permit application for the Dangerous Waste Permit and TSCA Approval No. WAR 0000 10350 for classification and addition to optional requirements for the Interim Status Unit at the Hanford Site. The permit application is available for review and copy by contacting the Department of Ecology at 509-375-1022.

Financials

DFLAW Operating Permit Modification public comment period

Feb. 10 - March 26, 2020

The Washington State Department of Ecology (Ecology) is proposing a modification to the Hanford Facility Resource Conservation and Recovery Act Permit, Revision 26. The proposed changes affect the Dangerous Waste Permit for the Treatment, Storage, and Disposal of Hazardous Waste for the Waste Treatment and Immobilization Plant, located in Part 1B, Operating Unit Group 20. The Waste Treatment Plant (WTP) is located on the Hanford Site in southeastern Washington. The plant will immobilize in glass (Vitrify) 50-million gallons of hazardous radioactive and chemical waste currently stored in 177 underground storage tanks at Hanford.

The WTP will be operated in two processing configurations. For full-term operations, WTP will be operated in the DFLAW configuration requiring the Lab, LAW, and EMF to become operational first to process the low-activity waste from baseline tanks.

The liquid effluents generated in the LAW facility and the Lab are transferred and treated at EMF, which will reduce the effluent volume by evaporation. WTP will later be operated in the baseline configuration when the PIT and the High-Level Waste Facility become operational.

The final step in the WTP phased permitting approach is the development of the operational permits for each facility. The Lab completed this step in 2017 and has an operating permit. This current permit modification provides the operational details for LAW and EMF.

Ecology invites you to review and comment on this proposed DFLAW Operating Permit Modification. Please submit comments Feb. 10 - March 26, 2020, electronically (preferred) via: https://www.ecology.wa.gov/permitting/ or by U.S. Mail, or hand-delivery: Daina McFadden 3100 Port of Benton Blvd, Richland WA 99354. 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 509-372-7950 or Hanford@ecy.wa.gov

DFLAW Operating Permit Modification public comment period

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Financials

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Ecology invites you to review and comment on this proposed DFLAW Operating Permit Modification. Please submit comments Feb. 10 - March 26, 2020, electronically (preferred) via: https://www.ecology.wa.gov/permitting/ or by U.S. Mail, or hand-delivery: Daina McFadden 3100 Port of Benton Blvd, Richland WA 99354. 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 509-372-7950 or Hanford@ecy.wa.gov

- Chapter 34, Waste Analysis Plan for the Baseline Configuration
Chapter 3B, Quality Assurance Project Plan
Chapter 3C, Waste Analysis Plan for the DFLAW Configuration
Chapter 4, Process Information
Chapter 4E, Low-Activity Waste Facility
Chapter 4S, Direct Feed Low-Activity Waste (Effluent Management Facility)
Chapter 4L, Balance of Facilities
Chapter 5, Procedures in Preventing Hazards
Chapter 6A, Inspection Plan
Chapter 7, Building Emergency Plan
Chapter 8, Personnel Training
Appendix to multiple appendices, including the interim compliance schedules
Supporting information for this modification includes:
Dangerous Waste Training Plan - Supplemental information developed to meet Washington Administrative Code requirements. This document will be placed in the operating record and will not be included as part of the Dangerous Waste Permit.
Chapter 12, Reporting and Recordkeeping - This chapter is proposed to be removed from the Dangerous Waste Permit because the information is published in Permit Conditions II - Facility Operating Record, and throughout the WTP Permit.
Invasive compliance schedule items compliant with this permit modification include: LAW 3 through LAW 7, LAW 11, LAW 14, LAW 15, LAW 17, LAW 25, LAW 45, as well as EMF 3 through EMF 7, EMF 11, and EMF 45.

Ecology invites you to review and comment on this proposed DFLAW Operating Permit Modification. Please submit comments Feb. 10 - March 26, 2020, electronically (preferred) via: https://www.ecology.wa.gov/permitting/ or by U.S. Mail, or hand-delivery: Daina McFadden 3100 Port of Benton Blvd, Richland WA 99354. 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 509-372-7950 or Hanford@ecy.wa.gov

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://ecology.wa.gov/WasteToxics/Nuclear-waste/Public-comment-periods. The documents will also be available at the Hanford Public Information Repositories. Ecology will consider and respond to all significant comments received during the public comment period. We will document your responses and make a response to comments document when we make our final permitting decision. To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 509-407-6833 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-633-6343.

From: [McFadden, Daina \(ECY\)](#)
To: HANFORD-INFO@LISTSERV.ECOLOGY.WA.GOV
Subject: 30-day advance notice of upcoming comment period
Date: Friday, January 10, 2020 11:32:37 AM

DFLAW Operating Permit Modification 30-Day Advance Notice

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 a Class 3 permit modification, 8C.2019.1D to the Hanford Waste Treatment and Immobilization Plant (WTP) Dangerous Waste Permit. This modification provides operating details to support the Direct Feed Low-Activity Waste (DFLAW) configuration for the Low-Activity Waste Facility and Effluent Management Facility. The Permittees are U.S. Department of Energy Office of River Protection and Bechtel National, Inc. The WTP is located on the Hanford Site in southeastern Washington.

What Changes are Being Proposed?

The proposed modification provides operating details to the following chapters and permit conditions:

- Unit - Specific Permit Conditions
- Part A Form
- Chapter 3, Waste Analysis Plan
- Chapter 3A, Waste Analysis Plan for the Baseline Configuration
- Chapter 3B, Quality Assurance Project Plan
- Chapter 3C, Waste Analysis Plan for the DFLAW Configuration
- Chapter 4, Process Information
- Chapter 4E, Low-Activity Waste Facility
- Chapter 4G, Direct feed Low-Activity Waste (Effluent Management Facility)
- Chapter 4I, Balance of Facilities
- Chapter 6, Procedures to Prevent Hazards
- Chapter 6A, Inspection Plan
- Chapter 7, Building Emergency Plan
- Chapter 8, Personnel Training
- Chapter 12, Reporting and Recordkeeping (information incorporated in other chapters and this chapter deleted)
- Updates to multiple appendices.

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



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From: [McFadden, Daina \(ECY\)](#)
To: HANFORD-INFO@LISTSERV.ECOLOGY.WA.GOV
Subject: 45-day public comment period starts today for DFLAW
Date: Monday, February 10, 2020 8:49:04 AM

DFLAW operating permit modification public comment period notification

The Washington State Department of Ecology is providing notification of a 45-day public comment period starting **Feb. 10 - March 26, 2020**. This comment period will address proposed modifications to the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Waste Treatment and Immobilization Plant. The Permittees are U.S. Department of Energy, Office of River Protection and Bechtel National, Inc. The Waste Treatment and Immobilization Plant (WTP) is located on the Hanford Site in southeastern Washington.

What Changes are Being Proposed?

The WTP will be operated in two processing configurations. For near-term operations, WTP will be operated in the DFLAW configuration requiring the WTP facilities; Lab, Low Activity Waste, and Effluent Management Facility to become operational first to process the low-activity waste from tank farms. In the DFLAW configuration, the waste is pretreated to remove cesium and solids before the waste is sent to the WTP LAW facility. In the DFLAW configuration, the pretreated waste will bypass the WTP Pretreatment Facility and be fed directly from the tank farms to the LAW facility. The LAW facility is where the low-activity fraction of the waste will be vitrified.

The liquid effluents generated in the LAW facility and the Lab are transferred and treated at EMF, which will reduce the effluent volume by evaporation. WTP will later be operated in the baseline configuration when the PTF and the High-Level Waste Facility become operational. The final step in the WTP phased permitting approach is the development of the operational permits for each facility. The Lab completed this step in 2017 and has an operating permit. This current permit modification provides the operational details for LAW and EMF.

Proposed Changes

This permit modification will add a description of operations to the WTP Dangerous Waste Permit for LAW and EMF. The modification describes operations, provides clarification between the baseline and DFLAW configurations, and adds details to ensure the operating permit is compliant with all dangerous waste regulations. The modification proposes changes to the following:

- Unit-Specific Permit Conditions
- Part A Form
- Chapter 3, Waste Analysis Plan
- Chapter 3A, Waste Analysis Plan for the Baseline Configuration
- Chapter 3B, Quality Assurance Project Plan
- Chapter 3C, Waste Analysis Plan for the DFLAW Configuration
- Chapter 4, Process Information
- Chapter 4E, Low-Activity Waste Facility
- Chapter 4G, Direct Feed Low-Activity Waste (Effluent Management Facility)
- Chapter 4I, Balance of Facilities
- Chapter 6, Procedures to Prevent Hazards

- Chapter 6A, Inspection Plan
- Chapter 7, Building Emergency Plan
- Chapter 8, Personnel Training
- Updates to multiple appendices, including the interim compliance schedules

Interim compliance schedule items completed with this permit modification include: LAW-3 through LAW-7, LAW-11, LAW-14, LAW-15, LAW-17, LAW-25, LAW-45, as well as EMF-3 through EMF-7, EMF-11, and EMF-45.

How to Comment

Ecology invites you to review and comment on this proposed DFLAW operating 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 26, 2020**.

[Electronic](#) submission (preferred), or 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

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Washington Department of Ecology - Hanford

Published by Ryan Ecology Miller (?) · 5 mins · 🌐

We're looking for your input on two new public comment periods beginning today, involving Direct-Feed Low-Activity Waste and the Hanford Emergency Management Plan, ending March 26 and March 25, respectively.

Learn more about the comment periods, review documents, and submit comments by visiting our public comment periods page: <https://ecology.wa.gov/.../Nuclear-was.../Public-comment-periods>.



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Ecology - Hanford

@ecyHanford

We're looking for input on two new comment periods starting today, about Direct-Feed Low-Activity Waste & the #Hanford Emergency Management Plan, ending March 26 & 25, respectively. Read more & submit comments here: ecology.wa.gov/Waste-Toxics/N... @EcologyWA @EPAnorthwest @HanfordSite



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