



## U.S. Department of Energy

Hanford Field Office  
P.O. Box 550  
Richland, Washington 99352

June 10, 2025

25-ECD-0079

Ms. Stephanie Schleif  
Program Manager  
Nuclear Waste Program  
Washington State Department of Ecology  
3100 Port of Benton Boulevard  
Richland, Washington 99354

Dear Ms. Schleif:

SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMIT MODIFICATION NOTIFICATION FORMS PCN-TBI-2025-03 AND PCN-TBI-2025-04

This letter transmits Hanford Facility Resource Conservation and Recovery Act Permit Change Notice forms PCN-TBI-2025-03 and PCN-TBI-2025-04 to the Washington State Department of Ecology (Ecology). The permit change forms document Class 1-prime modifications to the Research, Development, and Demonstration Permit for the 2,000-Gallon Test Bed Initiative Demonstration.

Individuals may request hard copies if the electronic files cannot be accessed. Requests can be made to Ecology by contacting Ecology's Resource Center at (509) 372-7950.

If you have any questions, please contact me, or you may contact Corey A. Low, Assistant Manager for Safety and Environment, at (509) 376-4820.

Sincerely,

Brian A.  
Harkins

Digitally signed by Brian  
A. Harkins  
Date: 2025.06.10  
13:56:22 -07'00'

Brian A. Harkins  
Acting Manager

ECD:MJD

Attachments and cc: See page 2

Ms. Stephanie Schleif  
25-ECD-0079

-2-

June 10, 2025

Attachments:

1. RD&D Permit Modification Form  
PCN-TCI-2025-03
2. RD&D Permit Modification Form  
PCN-TCI-2025-04

cc w/attachs:

T. G. Beam, H2C

J. L. Cantu, Ecology

A. S. Carlson, Ecology

E. J. Holbrook, Ecology

K. K. Holliday, H2C

S. J. Sexton, Ecology

Administrative Record

Ecology NWP Library

Environmental Portal, G3-35

HF Operating Record

(J. K. Perry, [jon\\_k\\_perry@rl.gov](mailto:jon_k_perry@rl.gov))

H2C Correspondence Control

[H2CC@rl.gov](mailto:H2CC@rl.gov)

HMIS Correspondence Control

[HMISCorr@rl.gov](mailto:HMISCorr@rl.gov)

Attachment 1  
25-ECD-0079

Hanford Facility Dangerous Waste RD&D Permit Modification Notification Forms  
Dangerous Waste RD&D Permit Change  
2,000-Gallon Test-Bed Initiative (TBI) Demonstration  
PCN-TCI-2025-03

(7 pages including cover sheet)

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**Hanford Facility Dangerous Waste RD&D Permit Modification Notification Forms**

**Dangerous Waste RD&D Permit Change**

**2,000-Gallon Test-Bed Initiative (TBI) Demonstration**

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- Page 1 of 4: Permit Section 5.1
- Page 2 of 4: Permit Section 7.5.1
- Page 3 of 4: Permit Section 7.6 and Table 7-1
- Page 4 of 4: Table 7-1 Footnote a

Submitted by H2C Co-Operator:

Reviewed by DOE-ECD:

**Hamilton, Helen M** Digitally signed by Hamilton,  
Helen M  
Date: 2025.03.19 11:05:48 -07'00'

**MICHAEL  
DEMITER** Digitally signed by  
MICHAEL DEMITER  
Date: 2025.03.19 11:42:03  
-07'00'

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David Saueressig

Date

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Michael Demiter

Date

<b>Hanford Facility Dangerous Waste RD&amp;D Permit Modification Form</b>				
Unit: <b>2,000-Gallon Test-Bed Initiative (TBI) Demonstration</b>	Permit Part <b>Dangerous Waste RD&amp;D Permit</b>			
<u>Description of Modification:</u> Section 7.5.1 of the TBI Research, Development, & Demonstration (RD&D) Permit acknowledges the potential need for additional time to ship the process totes. This Permit Change Notice (PCN) is the U.S. Department of Energy (DOE) request of additional time as allowed for in Washington Administrative Code 173-303-610. An additional 60-days is requested to transport the process totes to an off-site permitted treatment and disposal facility. The 150-days to complete the scope as now planned started when the analytical results report was completed on January 20, 2025. Completion of this task will be scheduled to be no later than June 19, 2025.				
<u>Justification for Modification</u> Stakeholders have requested briefings and information regarding shipment of the process totes. DOE, in coordination with the Washington State Department of Ecology, developed a communication plan focused on outreach and education on shipment of the process totes to the off-site facilities for treatment and disposal. The implementation of the communication plan regarding the details of the process tote shipment may extend past the current 90-day timeframe (i.e., April 20, 2025).				
Permit Revision Instructions: <ul style="list-style-type: none"> <li>• Page 38, Section 5.1 Requirements, Line 13, replace WRPS with H2C.</li> <li>• Page 42, Section 7.5.1. Remove Waste Containers, line 18, replace 90 days with 150 days to ship waste containers off-site upon receiving the sample result report from the laboratory.</li> <li>• Page 44, Section 7.6 Schedule for Closure, line 19, replace 90 days with 150 days to remove waste and replace 180 days with 240 days to complete closure.</li> <li>• Page 44, Table 7-1, 2<sup>nd</sup> row, right hand column, replace Expected Duration/Date of 90 days with 150 days of receiving analytical report.</li> <li>• Page 44, Table 7-1, 5<sup>th</sup> row, right hand column, replace Expected Duration/Date of 180 days with 240 days of receiving analytical report.</li> <li>• Page 45, Table 7-1, Footnote 'a', replace 90 days with 150 days for both the duration of the delay and the duration after which to seek an extension.</li> </ul>				
Note: The analytical results of samples from the TBI process totes are contained in RPP-RPT-65386, which is available as supporting information for this PCN.				
WAC 173-303-830 Modification Class Please mark the Modification Class:				
	Class 1	Class '1	Class 2	Class 3
		X		
Enter relevant WAC 173-303-830, Appendix I Modification citation number: D.1.b <i>D. Closure. 1. Changes to the closure plan: b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the director.</i>				
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Reason for Denial:			Approved by Ecology:  <small>Digitally signed by Holbrook, Edward (ECY) Date: 2025.04.07 11:02:26 -07'00'</small>	
			E. J. Holbrook	Date

## 5.0 INSPECTION PLAN

### 5.1 Requirements

The purpose for conducting inspections of the 2,000-Gallon TBI Demonstration aboveground system is to ensure that situations do not exist that might cause or lead to the release of mixed waste to the environment or that might pose a threat to human health and the environment. This inspection plan is designed to provide early warning of the potential for such events in order to make timely corrections and/or take preventative actions. Discrepancies or noncompliant conditions identified by inspections must be corrected on a schedule that helps prevent hazards to personnel, the public, and/or the environment. The inspections conducted during the operation and closure of the 2,000-Gallon TBI Demonstration will meet applicable regulatory requirements including WAC 173-303-320 *General inspection*, WAC 173-303-630(6), and WAC 173-303-640(6). The 2,000-Gallon TBI Demonstration inspection requirements are in addition to the inspection requirements for the SY Tank Farm.

A copy of the inspection schedule will be kept at the [WRPS-H2C](#) Shift Office and in the 2,000-Gallon TBI Demonstration Operating Record. Inspections within the schedule are performed by qualified personnel according to a frequency that has been developed through both regulatory requirements and operating experience. Inspection requirements will continue until certification of completion of closure. During an inspection, inspectors evaluate each inspection item against its associated acceptance criteria, defined in the schedule. The results of the inspections are documented in inspection logs that are dated and signed (handwritten or electronic signature) by the inspector.

Management-level staff responsible for implementation of the inspection plan are the Shift Operations Manager (i.e., Shift Operations Manager, Shift Manager, or Operations Manager) as described in the DST DWTP. Management-level staff review and concur with inspection records. All inspectors are trained in accordance with the DST DWTP, and a copy of the training record has been placed in the 2,000-Gallon TBI Demonstration Operating Record.

### 5.2 Inspection Schedule

#### 5.2.1 General

The frequency of inspection is how often (at a minimum) an inspection must be performed. The frequency of inspections is based on the rate of possible deterioration of equipment and the probability of a threat to human health or the environment.

Unless otherwise noted, inspection frequencies are defined by the following periodicities:

- Daily means once per calendar day.
- Weekly means once during the period from Sunday to Saturday.
- Monthly means once per calendar month.

#### 5.2.2 Daily Inspections

Daily inspections will include the following:

- Areas subject to spills when waste is being stored.
- Aboveground portions of the tank system to detect corrosion or releases of waste.
- Data gathered from monitoring and leak detection equipment.
- Inspection of container storage areas for leaking containers (totes) and for deterioration of containers and containment system when waste is being stored.
- Confirmation that area security controls, including barriers and signage, are in place, intact, and functional.

1 Closure will require the removal of all pretreated dangerous waste, removal of all 2,000-Gallon TBI  
2 Demonstration aboveground installed process equipment, shipment of the waste containers to the  
3 appropriate on-site disposal facility, inspection of the secondary containment for any potential ruptures,  
4 and removal of the secondary containment. Following removal of the aboveground system equipment and  
5 secondary containment, a physical walkdown will be performed by the IQRPE to verify that no evidence  
6 of spills or leaks exist, and that the 2,000-Gallon TBI Demonstration has met the closure performance  
7 standards by removal of all aboveground components external to Tank SY-101.

8 Material, equipment, or structures removed will be designated in accordance with WAC 173-303-070,  
9 *Designation of dangerous waste*, and disposed. Equipment that does not meet the clean debris rule or  
10 cannot be 100 percent inspected will be managed as mixed waste and disposed of appropriately.

## 11 **7.5 Closure Activities**

12 For this closure plan, closure activities are outlined from activities that are authorized as part of this  
13 RD&D permit. Closure activities will entail decontamination and disposal, removal and disposal, or  
14 removal and IXC storage, of the 2,000-Gallon TBI Demonstration equipment. The general order of  
15 closure activities has been selected to minimize the potential release of mixed waste constituents by  
16 removing the bulk of the mixed waste early in the closure process.

### 17 **7.5.1 Remove Waste Containers**

18 The process totes will be shipped off-site for treatment within 90-150 days of receiving the process totes  
19 sample result report from the laboratory. If additional time is needed to ship the process totes, DOE will  
20 submit an extension request in accordance with WAC 173-303-610(4)(a) and WAC 173-303-610(4)(c).  
21 The process totes will be decontaminated at the commercial treatment facility location and returned to the  
22 Hanford Site as empty containers. The empty process totes returned to the Hanford site will be stored in a  
23 radioactive materials area with other empty waste containers at the 616 building for reuse.

24 The delay tote will be removed and dispositioned in accordance with the generator provisions of  
25 WAC 173-303-070, *Designation of dangerous waste* through WAC 173-303-100, *Dangerous waste*  
26 *criteria*. The delay tote will be disposed at an on-site disposal location (Environmental Restoration  
27 Disposal Facility or Integrated Disposal Facility). The delay tote will either be inspected with remote  
28 cameras to verify the interior surface meets the definition of a “clean debris surface” (40 CFR 268.45,  
29 “Alternative Treatment standards for hazardous debris,” Table 1, Footnote 3) or the delay tote will meet  
30 the definition of an empty container as defined in WAC 173-303-160, *Containers*. If liquids are removed  
31 from the delay tote to meet the empty container definition, the removed liquids will be returned to  
32 Tank SY-101.

### 33 **7.5.2 Decontaminate and Remove Aboveground System Components**

34 Structures and equipment anticipated to be contaminated from the 2,000-Gallon TBI Demonstration at  
35 closure include tank system ancillary equipment and pipe surfaces, and components external of the tank  
36 riser that are part of the aboveground system. Decontamination methods will be selected based on  
37 demonstrated effectiveness in a radioactive environment and the ability to successfully achieve the  
38 closure performance standards. These methods will be based on existing radiation levels and experience  
39 decontaminating similar components and equipment at the SY Tank Farm.

40 The aboveground 2,000-Gallon TBI Demonstration components are expected to have minimal surface  
41 contamination and are not expected to require extensive decontamination prior to packaging. Following  
42 any decontamination required, the 2,000-Gallon TBI Demonstration aboveground system subject to this  
43 closure plan will be removed from the SY Tank Farm and disposed at the appropriate on-site disposal  
44 facility (Environmental Restoration Disposal Facility or Integrated Disposal Facility).

1 The SAP will include:

- 2 • **Sampling Objectives.** Sampling will be conducted to evaluate the extent of contamination and  
 3 the decontamination effectiveness.
- 4 • **Analytical Parameters.** Analytical parameters, methods, and specific analytical and sampling  
 5 procedures will be based on knowledge of the operations and wastes processed (i.e., process  
 6 knowledge) in the 2,000-Gallon TBI Demonstration. A list of indicator parameters, or  
 7 constituents of concern, will be developed based on potential constituents of concern present and  
 8 the closure performance standard (designation and or risk-based limits). The analyses will follow  
 9 the methods described in WAC 173-303-110(3)(a) and/or other approved methods.
- 10 • **Sampling Methods.** Sampling will be performed in a manner consistent with WAC 173-303-  
 11 110.
- 12 • **Sampling Equipment, Containers, and Preservation.** The selection of sampling equipment,  
 13 containers, and sample preservation techniques will be in accordance with procedures outlined in  
 14 WAC 173-303-110(3)(a).
- 15 • **Chain-of-Custody Record.** The chain-of-custody record will ensure the integrity of the samples,  
 16 from collection through analysis to final disposition.

17 **7.6 Schedule for Closure**

18 The closure schedule presented in Table 7-1 complies with the time frames in WAC 173-303-610(4)(a)  
 19 and (b) to remove waste within ~~90-150~~ days and to complete closure within ~~+80-240~~ days of receiving the  
 20 analytical report from the process tote sampling. If closure plan changes are necessary to achieve clean  
 21 closure, a revised schedule with new elements (e.g., sampling and analysis plan) will be proposed and  
 22 submitted to Ecology for approval.

23

**Table 7-1 2,000-Gallon Test Bed Initiative Demonstration Closure Schedule**

Activity Description	Expected Duration/Date
Receive analytical report from process tote sampling	Day “0”
Remove waste containers and ship to off-site permitted treatment facility	Within <del>90-150</del> days of receiving analytical report <sup>a</sup>
Decontaminate and remove aboveground system components and transfer to appropriate on-site disposal facility	About 90 days after waste containers are shipped off-site
Review operating record and inspect site for spills from operations, if required, remediate any areas of concern from spills resulting from RD&D permitted operations <sup>b</sup>	About 21 days from decontamination and removing aboveground system components
Remove secondary containment and transfer to appropriate on-site disposal facility	About 45 days from decontamination and removing aboveground system components but within <del>+80-240</del> days of receiving analytical report <sup>c</sup>
Remove ITPS and disposition components	Within the 1 year duration of the permit <sup>d</sup>

**Table 7-1 2,000-Gallon Test Bed Initiative Demonstration Closure Schedule**

Activity Description	Expected Duration/Date
<b>Completion of Closure Activities</b>	
Submit IQRPE and owner/operator closure certification to Ecology	Within 60 days after the actions above are complete

<sup>a</sup>If shipment off-site is delayed beyond ~~90~~-150 days, DOE will seek an extension to the ~~90~~150-day clock in accordance with WAC 173-303-610(4)(a) and -610(4)(c).

<sup>b</sup>If needed, the permittees will submit a sampling and analysis plan for verification of clean closure concentrations of media (e.g., soils) and request Ecology approval.

<sup>c</sup>If final closure activities take longer than shown, DOE will seek an extension durations in accordance with WAC 173-303-610(4)(b) and -610(4)(c).

<sup>d</sup>If ITPS removal activities take longer than the duration of the permit, DOE may request a one-time permit renewal in accordance with WAC 173-303-809(4).

IQRPE = Independent, qualified, registered professional engineer.

ITPS = In-Tank Pretreatment System.

1

2 **7.7 Certification of Closure**

3 Within 60 days of completion of closure activities for the facility, a copy of the closure certification,  
 4 signed by the owner or operator and an IQRPE, will be transmitted, via registered mail or other means  
 5 that establish proof of receipt (including applicable electronic means) to Ecology and placed in the  
 6 administrative record. The certification of closure will cover only the portions of the 2,000-Gallon TBI  
 7 Demonstration covered by the closure activities outlined in this closure plan. The certification will occur  
 8 upon disposition of waste generated and completion of closure activities. The IQRPE will provide a  
 9 signed statement that meets the applicable requirements of WAC 173-303-610(6) certifying that the  
 10 closure activities were performed in accordance with the technical specifications of this closure plan.

Attachment 2  
25-ECD-0079

Hanford Facility Dangerous Waste RD&D Permit Modification Notification Forms  
Dangerous Waste RD&D Permit Change  
2,000-Gallon Test-Bed Initiative (TBI) Demonstration  
PCN-TCI-2025-04

(7 pages including cover sheet)

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**Hanford Facility Dangerous Waste RD&D Permit Modification Notification Forms**

**Dangerous Waste RD&D Permit Change**

**2,000-Gallon Test-Bed Initiative (TBI) Demonstration**

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Page 2 of 3: RD&D Permit, Page 45

Page 3 of 3: RD&D Permit Conditions, Page Conditions.3

Submitted by H2C Co-Operator:

Reviewed by DOE-ECD:

**Hamilton, Helen M** Digitally signed by Hamilton,  
Helen M  
Date: 2025.03.20 12:53:33 -07'00'

**MICHAEL  
DEMITER** Digitally signed by  
MICHAEL DEMITER  
Date: 2025.03.21 09:22:29  
-07'00'

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David Saueressig

Date

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Michael Demiter

Date

## Hanford Facility Dangerous Waste RD&D Permit Modification Form

Unit:

Permit Part

**2,000-Gallon Test-Bed Initiative (TBI) Demonstration****Dangerous Waste RD&D Permit**Description of Permit Change:

The U.S. Department of Energy (DOE) requests the TBI Research, Development, & Demonstration (RD&D) Permit, WA7890008967, be renewed for an additional year. DOE requests the expiration date of the TBI RD&D Permit be changed to July 18, 2026.

Demonstration Project Status:

The demonstration project successfully pretreated approximately 2,000 gallons of supernatant from Tank SY-101 with an In-Tank Pretreatment System (ITPS) utilizing an Ion Exchange Column containing Crystalline Silicotitanate media. The pretreated waste is contained in six process totes at Storage Area A, while awaiting off-site shipment to permitted facilities for treatment and disposal. Sampling of the pretreated waste has occurred, and a report on the analytical results was previously provided to Ecology as supporting information for PCN-TBI-2025-03. The completion of the analytical results report on January 20, 2025 initiated closure of the demonstration project.

Following completion of operational activities, the TBI system and equipment was placed into a safe configuration and further activities have been paused pending shipment of the process totes. The permit's inspection plan continues to be implemented in accordance with applicable requirements. The independent, qualified, registered professional engineer design assessment report (RPP-IQRPE-50157) for the TBI Demonstration Extraction was submitted to Ecology on December 6, 2024 (DOE letter 24-ECD-0190) and approved by Ecology on December 18, 2024 (Ecology letter 24-NWP-223). The TBI ITPS has not yet been removed from the SY-101 tank riser and the replacement riser shield plug has not yet been installed.

Justification for Modification:

In late 2024 the off-site permitted facilities contracted to treat and dispose of the pretreated waste in the process totes informed DOE and Hanford Tank Waste Operations & Closure's (H2C) predecessor, Washington River Protection Solutions (WRPS), that completion of the reports on treatment and disposal would not occur until late 2025. The delay in the availability of this treatment and disposal information impacts the ability of H2C to prepare a final report and closure certification for the TBI Demonstration Project before the RD&D Permit expires.

Ongoing project delays impact completion of the remaining closure activities because some tasks require removal, treatment, and disposal of the waste first. Once the closure activities are complete, certification of closure can be completed. The cumulative impact of these delays, in combination with the additional time needed by the offsite treatment and disposal facilities for report preparation, will push completion of the TBI project scope out until the first half of CY2026. Thus, the request for a one-year renewal of the RD&D permit, which currently expires on July 18, 2025.


Authority to Renew Permit:

Condition I.I.2 of the TBI RD&D Permit states "The Permit may be renewed in accordance with [Washington Administrative Code] WAC 173-303-809(4)." In addition, footnote 'd' of Table 7-1 in the RD&D permit currently states "..., DOE may request a one-time permit renewal in accordance with WAC 173-303-809(4)." The permit acknowledges Ecology's authority to renew a RD&D permit and accounts for the potential need to renew this permit to complete the TBI Demonstration Project. Washington Administrative Code 173-303-809(4) limits the number of renewals to three and the period of each renewal to not more than a year. This request would be the first renewal, and the additional time requested is one year.

Permit Revision Instructions:

- TBI RD&D Permit, Page 44, Table 7-1, 6<sup>th</sup> row, right column, delete "1 year."
- TBI RD&D Permit, Page 45, Table 7-1, footnote 'd', revise to state the following:  

"Prior to the closure activities taking longer than the initial 1-year duration of the permit, this Permit was renewed through July 18, 2026 in accordance with Permit Condition I.I.2.a and WAC 173-303-809(4)."
- TBI RD&D Permit Conditions, Page Conditions.3, Lines 23 and 29, update effective and expiration dates.

WAC 173-303-830 Modification Class Please mark the Modification Class:	Class 1	Class '1	Class 2	Class 3
		X		
Enter relevant WAC 173-303-830, Appendix I Modification citation number: A.1 WAC 173-303-830, Appendix I, A. General Permit Provisions, 1. Administrative and informational changes.				
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Reason for Denial:	Approved by Ecology:  Digitally signed by Holbrook, Edward (ECY) Date: 2025.04.08 14:02:10 -07'00'			
	E. J. Holbrook	Date		

1 The SAP will include:

- 2 • **Sampling Objectives.** Sampling will be conducted to evaluate the extent of contamination and  
 3 the decontamination effectiveness.
- 4 • **Analytical Parameters.** Analytical parameters, methods, and specific analytical and sampling  
 5 procedures will be based on knowledge of the operations and wastes processed (i.e., process  
 6 knowledge) in the 2,000-Gallon TBI Demonstration. A list of indicator parameters, or  
 7 constituents of concern, will be developed based on potential constituents of concern present and  
 8 the closure performance standard (designation and or risk-based limits). The analyses will follow  
 9 the methods described in WAC 173-303-110(3)(a) and/or other approved methods.
- 10 • **Sampling Methods.** Sampling will be performed in a manner consistent with WAC 173-303-  
 11 110.
- 12 • **Sampling Equipment, Containers, and Preservation.** The selection of sampling equipment,  
 13 containers, and sample preservation techniques will be in accordance with procedures outlined in  
 14 WAC 173-303-110(3)(a).
- 15 • **Chain-of-Custody Record.** The chain-of-custody record will ensure the integrity of the samples,  
 16 from collection through analysis to final disposition.

17 **7.6 Schedule for Closure**

18 The closure schedule presented in Table 7-1 complies with the time frames in WAC 173-303-610(4)(a)  
 19 and (b) to remove waste within 90 days and to complete closure within 180 days of receiving the  
 20 analytical report from the process tote sampling. If closure plan changes are necessary to achieve clean  
 21 closure, a revised schedule with new elements (e.g., sampling and analysis plan) will be proposed and  
 22 submitted to Ecology for approval.

23

**Table 7-1 2,000-Gallon Test Bed Initiative Demonstration Closure Schedule**

Activity Description	Expected Duration/Date
Receive analytical report from process tote sampling	Day “0”
Remove waste containers and ship to off-site permitted treatment facility	Within 90 days of receiving analytical report <sup>a</sup>
Decontaminate and remove aboveground system components and transfer to appropriate on-site disposal facility	About 90 days after waste containers are shipped off-site
Review operating record and inspect site for spills from operations, if required, remediate any areas of concern from spills resulting from RD&D permitted operations <sup>b</sup>	About 21 days from decontamination and removing aboveground system components
Remove secondary containment and transfer to appropriate on-site disposal facility	About 45 days from decontamination and removing aboveground system components but within 180 days of receiving analytical report <sup>c</sup>
Remove ITPS and disposition components	Within the <del>1-year</del> duration of the permit <sup>d</sup>

**Table 7-1 2,000-Gallon Test Bed Initiative Demonstration Closure Schedule**

Activity Description	Expected Duration/Date
<b>Completion of Closure Activities</b>	
Submit IQRPE and owner/operator closure certification to Ecology	Within 60 days after the actions above are complete

<sup>a</sup>If shipment off-site is delayed beyond 90 days, DOE will seek an extension to the 90-day clock in accordance with WAC 173-303-610(4)(a) and -610(4)(c).

<sup>b</sup>If needed, the permittees will submit a sampling and analysis plan for verification of clean closure concentrations of media (e.g., soils) and request Ecology approval.

<sup>c</sup>If final closure activities take longer than shown, DOE will seek an extension durations in accordance with WAC 173-303-610(4)(b) and -610(4)(c).

<sup>d</sup>~~If~~ Prior to the ~~ITPS removal closure~~ activities ~~take taking~~ longer than the ~~initial 1-year~~ duration of the permit, ~~DOE may request a one-time this permit~~ Permit was renewed ~~at~~ through July 18, 2026 in accordance with [Permit Condition II.2.a and WAC 173-303-809\(4\)](#).

IQRPE = Independent, qualified, registered professional engineer.

ITPS = In-Tank Pretreatment System.

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## **7.7 Certification of Closure**

Within 60 days of completion of closure activities for the facility, a copy of the closure certification, signed by the owner or operator and an IQRPE, will be transmitted, via registered mail or other means that establish proof of receipt (including applicable electronic means) to Ecology and placed in the administrative record. The certification of closure will cover only the portions of the 2,000-Gallon TBI Demonstration covered by the closure activities outlined in this closure plan. The certification will occur upon disposition of waste generated and completion of closure activities. The IQRPE will provide a signed statement that meets the applicable requirements of WAC 173-303-610(6) certifying that the closure activities were performed in accordance with the technical specifications of this closure plan.##

1  
2 **DANGEROUS WASTE RESEARCH, DEVELOPMENT AND DEMONSTRATION PERMIT**  
3 **FOR THE 2,000-GALLON TEST BED INITIATIVE DEMONSTRATION**  
4

5  
6 Washington State Department of Ecology  
7 Nuclear Waste Program  
8 3100 Port of Benton Boulevard  
9 Richland, WA 99354-1670  
10 Telephone: (509) 372-7950

11 This Permit is issued in accordance with the applicable provisions of the Hazardous Waste Management  
12 Act, Chapter 70A.300 Revised Code of Washington (RCW), and the regulations promulgated hereunder  
13 in Chapter 173-303 Washington Administrative Code (WAC).

14 \_\_\_\_\_  
15 Issued To: United States Department of Energy  
16 Hanford Site  
17 Owner/Operator  
18 P.O. Box 450  
19 Richland, WA 99354  
20 Co-Operator: Washington River Protection Solutions, LLC  
21 P.O. Box 1500  
22 Richland, WA 99354

23 This Permit is effective as of July 18, 2024, and shall remain in effect until July 18, ~~2025~~2026, unless  
24 modified or revoked and reissued under WAC 173-303-830(3), or terminated under WAC 173-303-809(3)  
25 or WAC 173-303-830(5). This Permit shall not exceed 365 calendar days of the Dangerous Waste  
26 Research, Development, and Demonstration Activity authorized by this Permit.

27 Issued by: Washington State Department of Ecology  
28 \_\_\_\_\_

29 \_\_\_\_\_ Date Signed 01/28/2025

30 Stephanie Schleif  
31 Program Manager  
32 Nuclear Waste Program  
33 Washington State Department of Ecology