



U.S. Department of Energy

Hanford Field Office

P.O. Box 550

Richland, Washington 99352

April 14, 2025

25-ECD-0055

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 FORM PCN-TBI-2025-01

This letter transmits Hanford Facility Resource Conservation and Recovery Act, Permit Change Notice (PCN) form PCN-TBI-2025-01, to the Washington State Department of Ecology (Ecology). The PCN form documents a Class 1-prime modification to the Research, Development, and Demonstration Permit for the 2,000-Gallon Test Bed Initiative Demonstration. The modification addresses requirements for Independent Qualified Registered Professional Engineer approvals prior to closure activities. The modification was approved by Ecology on January 27, 2025.

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 T.
Vance

Digitally signed by Brian
T. Vance
Date: 2025.04.14
13:18:53 -07'00'

Brian Vance
Manager

ECD:ACM

Attachment and cc: See page 2

Ms. Stephanie Schleif
25-ECD-0055

-2-

April 14, 2025

Attachment:
RD&D Permit Modification Forms

cc w/ attach:
T.G. Beam, H2C
A. S. Carlson, Ecology
E. J. Holbrook, Ecology
K. K. Holliday, H2C
M. M. Oates, H2C
M. T. Schanke, H2C
R. W. Szelmeczka, H2C
M. Woods, ODOE
Administrative Record (TSD: H-0-8)
Environmental Portal
HF Operating Record (J. K. Perry, HMIS)

cc w/o attach
J. L. Cantu, Ecology
S. J. Sexton, Ecology
BNI Correspondence
Ecology NWP Library
HMIS Correspondence HMISCorr@rl.gov
H2C Correspondence H2CC@rl.gov

Attachment
25-ECD-0055

Hanford Facility Dangerous Waste RD&D Permit Modification Notification Forms
Dangerous Waste RD&D Permit Change
2,000-Gallon Test Bed Initiative Demonstration

(5 pages including cover sheet)

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

Index

Page 1 of 1: Permit Conditions

Submitted by WRPS Co-Operator:

Reviewed by DOE-ECD:

Hamilton, Helen M  Digitally signed by Hamilton, Helen
M
Date: 2025.01.15 16:47:31 -08'00'

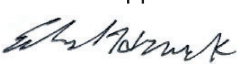
Peggy Hamilton

Date

DUANE CARTER  Digitally signed by DUANE
CARTER
Date: 2025.01.16 14:32:17 -08'00' For

Mike Demiter

Date

Hanford Facility Dangerous Waste RD&D Permit Modification Form					
Unit: 2,000-Gallon Test-Bed Initiative (TBI) Demonstration	Permit Part Dangerous Waste RD&D Permit				
<u>Description of Modification:</u> Permit Conditions: <ul style="list-style-type: none"> Page Conditions.17: Closure. <p>The modification splits Condition II.H.1 into an additional condition (i.e., II.H.1.a) better representing the sequence of work and approvals required to proceed from one task to the next. The modification is justified to document the sequence of required approvals of the Independent Qualified Registered Professional Engineer (IQRPE) reports prior to closure activities. For example, Ecology letter 24-NWP-223 approved the IQRPE design assessment report allowing for extraction of the In-Tank Pre-Treatment System but prior to completion of the installation assessment report. The modification of the permit conditions would better represent the approved workflow.</p>					
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: WAC 173-303-830(d)(i) Other modifications. <i>WAC 173-303-830(d)(i) Other modifications. In the case of modifications not explicitly listed in Appendix I of this section, the permittee may submit a Class 3 modification request to the department, or he or she may request a determination by the director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, he or she must provide the department with the necessary information to support the requested classification.</i>					
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Reason for Denial:</u>			Approved by Ecology:  <small>Digitally signed by Holbrook, Edward (ECY) Date: 2025.01.27 13:42:25 -08'00'</small>		
			E. J. Holbrook		Date

Revision Instructions:

Revise the Permit Conditions to incorporate the changes shown herein:

- Permit Conditions II.H.1 and II.H.1.a

- II.G.2.c.i** The Certified 2,000-Gallon TBI Demonstration RD&D Permit Application, dated June 8, 2023, and all certified supplemental permit application material submitted to Ecology;
- II.G.2.c.ii** Documentation of arrangements made with local authorities pursuant to *Hanford Site Emergency Management Plan*, DOE/RL 94-02.
- II.G.2.c.iii** All closure documents prepared pursuant to this Permit [WAC 173-303-610(3)(a)].
- II.G.2.d** For all new tank systems and components, pursuant to WAC 173-303-640(3)(a), an assessment by an Independent, Qualified, Registered, Professional Engineer (IQRPE) that the tank system has sufficient structural integrity and is acceptable for the storing and treating of dangerous waste.
- II.G.2.e** For all 2,000-Gallon TBI Demonstration components, pursuant to WAC 173-303-640(3)(c), an assessment by an IQRPE or by an independent, qualified tank installation inspector not affiliated with the tank vendor and certified by an independent, registered, professional engineer, that the tank system was installed properly and that all discrepancies have been repaired as required by WAC 173-303-640(3)(c).
- II.G.3** The Permittees shall submit to Ecology a copy of the Final Report, in accordance with the Permit, Section 6.3. The final report shall provide sufficient information and data to allow evaluation against the project objectives.
- II.H Closure**
- II.H.1** At least 45 days before initiating closure, the Permittees shall submit to Ecology for review and approval the IQRPE design ~~and installation~~ assessment reports required by WAC 173-303-640(3) and associated drawings for the extraction system for the In-Tank Pretreatment System.
- II.H.1.a** Extraction of the ITPS may commence with Ecology's concurrence of the design assessment report. After completion of extraction, Permittee shall submit to Ecology for review and approval the IQRPE installation assessment report required by WAC 173-303-640 (3) and associated drawings. These reports will be made available in the Hanford Administrative Record when submitted to Ecology.
- II.H.2** IXC Disposition
- No later than six months prior to commencing the closure activities subject to this Permit, the Permittees shall request a permit modification to amend Part III of the Hanford Site-wide Permit, Low-Activity Pretreatment System Operating Unit Group 1, as needed to authorize use of the Tank Side Cesium Removal IXC Storage Pad to store the IXC in accordance with the Hanford Site-wide Permit as described in Permit Section 7.5.3 pending treatment and final off-site disposal.
- II.H.3** The Permittees must perform closure of the 2,000-Gallon TBI Demonstration in a manner that minimizes the need for further maintenance; controls, minimizes or eliminates post-closure releases of dangerous waste constituents or residues to the extent necessary to protect human health and the environment; and returns to land to the appearance and use of the surrounding land areas to the degree possible given the nature of the previous dangerous waste activity. [WAC 173-303-610(2)(a)].
- II.H.4** The Permittees must achieve clean closure by removing or decontaminating all above ground equipment, structures, soils, and other materials contaminated with dangerous waste constituents or residues during the 2,000-Gallon TBI Demonstration, as required