



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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September 8, 2020

20-NWP-135

Brian T. Vance, Manager
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: H5-30
Richland, Washington 99352

Ty Blackford, President and CEO
CH2M HILL Plateau Remediation Company
PO Box 1600, MSIN: A7-01
Richland, Washington 99352

Re: Approval of PCN-IDF-2020-04, Class ¹1 Modification to the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit Group 11, Integrated Disposal Facility (IDF) Permit, WA7890008967*

Dear Brian T. Vance and Ty Blackford:

The Department of Ecology (Ecology) approves the referenced Class ¹1 Modification. The approved Hanford Facility RCRA Permit Modification Notification Form is enclosed.

This modification details changes to the IDF leachate collection system. The modifications are specific for replacing each tank floating membrane cover with a dome roof and upgrades to piping which allow operations to transfer leachate between tanks.

The changes requested were not explicitly listed in the WAC 173-303-830, Appendix I. Therefore, Ecology agreed to consider the changes in this modification as a Class ¹1 modification based upon the leachate collection systems being listed in the current permit as a critical system for the facility as defined in Permit Condition III.11.C.1.a and managed under the generator regulations (WAC 173-303-200). Ecology believes the requested modifications to the leachate collection systems are enhancements to the system and do not change how the system functions. We are approving this modification to allow the necessary construction to proceed.

Approval of this permit modification should not indicate to the permittee that Ecology has altered its regulatory decision, as stated in Ecology Letter 20-NWP-047, that the leachate collection systems must be added into the permit as dangerous waste management units. This approved modification also does not set a precedent that similar future modifications would be considered as Class ¹1 modifications.

Ecology will be communicating with you in separate correspondence our expectations for how the leachate collections systems will be permitted. Approval of this PCN does not negate any potential changes (engineering or non-engineering) which may be required to properly add the Leachate Collection Systems as a Dangerous Waste Management Unit into the IDF permit.

If there are any questions please contact Nancy Ware, Permit Lead, at nancy.ware@ecy.wa.gov or 509-372-7912 or Mandy Jones, Permit Coordinator, at mandy.jones@ecy.wa.gov or 509-372-7916.

Sincerely,



Digitally signed by
Schleif, Stephanie
(ECY)

Stephanie Schleif
Deputy Program Manager
Nuclear Waste Program

sd/ag
enclosure

cc electronic:

Dave Bartus, EPA
David Einan, EPA
Tim Hamlin, EPA
Duane Carter, USDOE-RL
Mostafa Kamal, USDOE-RL
Gary Piles, USDOE-RL
Brian Stetter, USDOE-RL
Erika Garcia, CHPRC
Leah Hare, CHPRC
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Jay Decker, Ecology
Tracy Gao, Ecology
Katie Hall, Ecology
Mandy Jones, Ecology
Dan McDonald, Ecology
Dan Thompson, Ecology
Nancy Ware, Ecology
CHPRC Correspondence Control
Environmental Portal
Hanford Administrative Record
MSA Correspondence Control
NWP RIM Coordinators,
USDOE-RL Correspondence Control
EPA Region 10 Hanford Field Office,
Correspondence Control

Hanford Facility RCRA Permit Modification Notification Forms

**Part III, Operating Unit 11
Integrated Disposal Facility**

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Appendix C9, Infrastructure Construction Specification

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Submitted by Co-Operator:

Lorna M. Dittmer

Lorna M. Dittmer

July 23, 2020

Date

Reviewed by DOE Program Office:

Duane B. Carter

Duane B. Carter

July 23, 2020

Date

×

Hanford Facility RCRA Permit Modification Form				
Unit: <i>Integrated Disposal Facility</i>	Permit Part <i>Part III, Operating Unit Group 11</i>			
<p><u>Description of Modification:</u></p> <p>Appendix 4A, Section 1, Phase I Critical Systems Design Report (continued)</p> <p>Added new Section 5.12.2.5 - Leachate Tank Dome Cover Structural Analysis</p> <p>Added new Section 5.12.2.6 - Leachate Transfer Pipeline Loading Calculation</p> <p>Section 6.4.2.1 Description – Added wording that the leachate transfer piping allows pumping of leachate from each landfill cell to either leachate collection tank. Deleted the parenthetical “(see Section 6.4.2.2)”. Made minor editorial changes for singular to plural words, i.e., “crest pad buildings”, “leachate transfer buildings”, “storage tanks” and “tanker truck load facilities”. Added two last paragraphs describing in more detail, the leachate transfer pipeline.</p> <p>Section 6.4.4.2, Tank Design – Removed reference to the “floating geomembrane” cover. Also replaced “open topped” with “covered”.</p> <p>Added new Section 6.4.4.5 - Fabricated Dome Cover</p> <p>Section 6.4.5.3, Leachate Storage Tank – Removed reference to the floating cover. Also added new paragraph discussing tank level instrumentation and access to stilling wells and instrument interfaces.</p> <p>Section 7.2.3, IDF Leachate Handling System – Deleted the 4th bullet concerning the floating covers.</p> <p>Section 7.3.1, Action Leakage Rate – Updated first sentence of second paragraph by adding phrase “over a seven-day period” to clarify Action Leakage Rate calculation.</p>				
WAC 173-303-830 Modification Class Please mark the Modification Class:	Class 1	Class '1	Class 2	Class 3
		X		
<p>Enter relevant WAC 173-303-830, Appendix I Modification citation number:</p> <p>Some of the changes described above correspond with WAC 173-303-830 Appendix I, A.1 (Administrative and informational changes) and A.2 (Correction of typographical errors).</p> <p>Upgrading tank component from a floating roof to a dome and upgrades to piping to allow Operations to transfer leachate between tanks are not explicitly listed in WAC 173-303-830, Appendix I. The permittees request that the proposed change be reviewed and approved as a Class '11 modification pursuant to WAC 173-303-830(4)(d)..</p>				
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reviewed by Ecology: Schleif, Stephanie (ECY) <small>Digitally signed by Schleif, Stephanie (ECY) Date: 2020.09.08 13:19:10 -07'00'</small>			
	S. N. Schleif		Date	

September 30, 2020

Hanford Facility RCRA Permit Modification Form

Unit: <i>Integrated Disposal Facility</i>	Permit Part <i>Part III, Operating Unit Group 11</i>
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Description of Modification:

Appendix 4A, Section 3, Critical Systems Design Drawings – continued

Replace old “Drawing 13, H-2-830854, Sheet 2” with updated “Drawing 18, H-2-830854, Sheet 2, Rev 1”

After updated “Drawing 18, H-2-830854, Sheet 2”, Rev 1, add new drawings:

Drawing 19, H-2-830854, Sheet 4, Rev 1

Drawing 20, H-2-830858, Sheet 1, Rev 1.

Replace “Drawing 14, H-2-830869” with updated “Drawing 21, H-2-830869, Rev 1”.

After updated “Drawing 21, H-2-830869” , add new drawings:

Drawing 22, H-2-830872, Sheet 1, Rev 1

Drawing 23, H-2-837964, Sheet 5

Drawing 24, H-2-837964, Sheet 6

Drawing 25, H-2-837972, Sheet 1

Drawing 26, H-2-837972, Sheet 2

Drawing 27, H-2-837972, Sheet 3

Drawing 28, H-2-837973, Sheet 1

Drawing 29, H-2-837973, Sheet 2

Drawing 30, H-2-837973, Sheet 3.

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:

Some of the changes described above correspond with WAC 173-303-830 Appendix I, A.1 (Administrative and informational changes) and A.2 (Correction of typographical errors).

Upgrading tank component from a floating roof to a dome and upgrades to piping to allow Operations to transfer leachate between tanks are not explicitly listed in WAC 173-303-830, Appendix I. The permittees request that the proposed change be reviewed and approved as a Class '1 modification pursuant to WAC 173-303-830(4)(d).

Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reviewed by Ecology:	
	Schleif, Digitally signed by Schleif, Stephanie (ECY) Date: 2020.09.08 13:20:13 -07'00'	Date
	S. N. Schleif	

Hanford Facility RCRA Permit Modification Form				
Unit: <i>Integrated Disposal Facility</i>	Permit Part <i>Part III, Operating Unit Group 11</i>			
<p><u>Description of Modification:</u></p> <p>Appendix 4D, Construction Specifications (continued)</p> <p style="padding-left: 40px;">On page 4D.205, under the paragraph entitled, “Tank Installation”, delete the word “floating”.</p> <p style="padding-left: 40px;">On page 4D.206, delete the entire subparagraph entitled, “Floating Cover Drainage Test”.</p> <p style="padding-left: 40px;">On page 4D.286, at paragraph 4.a., delete the word “floating”.</p> <p>Appendix C9, Infrastructure Construction Specification (CHPRC-039953, Rev. 0)</p> <p style="padding-left: 40px;">Add new appendix.</p>				
WAC 173-303-830 Modification Class	Class 1	Class '1	Class 2	Class 3
Please mark the Modification Class:		X		
<p>Enter relevant WAC 173-303-830, Appendix I Modification citation number:</p> <p>Some of the changes described above correspond with WAC 173-303-830 Appendix I, A.1 (Administrative and informational changes) and A.2 (Correction of typographical errors).</p> <p>Upgrading tank component from a floating roof to a dome and upgrades to piping to allow Operations to transfer leachate between tanks are not explicitly listed in WAC 173-303-830, Appendix I. The permittees request that the proposed change be reviewed and approved as a Class 11 modification pursuant to WAC 173-303-830(4)(d).</p>				
Modification Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Reviewed by Ecology: Schleif, Stephanie (ECY)		
		<small>Digitally signed by Schleif, Stephanie (ECY) Date: 2020.09.08 13:21:11 -0700</small>		Date
		S. N. Schleif		

Revision Instructions:

Revise Unit Specific Conditions, Chapter 4.0, Appendix 4A, Section 1, Appendix 4A, Section 3, Appendix 4D and Appendix C9 to incorporate the changes shown herein.