



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 16, 2021

21-NWP-036

Brian T. Vance, Manager
Office of River Protection
United States Department of Energy
PO Box 450, MSIN: H6-60
Richland, Washington 99352

Valerie McCain, Project Director
Bechtel National, Inc.
2435 Stevens Center Place, MSIN: MS19-A
Richland, Washington 99354

Re: Approval of 24590-HLW-PCN-ENV-20-001, Class ¹1 Modifications 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 10, Waste Treatment and Immobilization Plant, (WTP Permit) WA7890008967*

Reference: See page 2

Dear Brian T. Vance and Valerie McCain:

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

The modification provides the updated piping and instrumentation diagrams (P&IDs) for the High Level Waste (HLW) Melter Offgas Treatment Process System that includes:

- HLW Melter Offgas System Melter 1
- HLW Melter 2 Primary Offgas Wet Electrostatic Precipitator
- HLW Process Vessel Vent Exhaust System

These are listed on the enclosure and replace the corresponding permit P&IDs in Appendix 10.2.

If there are any questions, please contact Katie Hall, Permit Coordinator, at 509-372-7885 or katie.hall@ecy.wa.gov.

Sincerely,

 Digitally signed
by Schleif,
Stephanie (ECY)

Stephanie Schleif
Deputy Program Manager
Nuclear Waste Program

nw/ag
Enclosure

cc: See page 2

Reference: Letter 20-ECD-0054, dated November 19, 2020, "Submittal of Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-HLW-PCN-ENV-20-001, Piping and Instrumentation Diagrams"

cc electronic w/enc:

Dave Bartus, EPA	Jennifer Cantu, Ecology
David Einan, EPA	Annette Carlson, Ecology
Kaylin Burnett, USDOE, ORP	Nitya Chandran, Ecology
Lori Huffman, USDOE-ORP	Suzanne Dahl, Ecology
Christopher Kemp, USDOE-ORP	Jay Decker, Ecology
Gae Neath, USDOE-ORP	Tracy Gao, Ecology
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Brittany Sparks, BNI	Dan Thompson, Ecology
Jon Perry, HMIS	Oliver Wang, Ecology
Mason Murphy, CTUIR	Nancy Ware, Ecology
Jack Bell, NPT	Environmental Portal
Rex Buck, Jr., Wanapum	Hanford Administrative Record
Laurene Contreras, YN	Hanford Facility Operating Record
ERWM Staff, YN	BNI Correspondence Control
Susan Leckbend, HAB	EPA Region 10 Hanford Field Office,
David Reeploeg, Hanford Communities	Correspondence Control
Max Woods, ODOE	HMIS Correspondence Control
Gail Laws, WDOH	USDOE-ORP Correspondence Control
Debra Alexander, Ecology	USDOE-RL Correspondence Control

Quarter Ending: Dec. 31, 2020
RCRA Operating Record Number: R605

24590-HLW-PCN-ENV-20-001

Hanford Facility RCRA Permit Modification Notification Form
Part III, Operating Unit Group 10
Waste Treatment and Immobilization Plant

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Page 2 of 4: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant
Revisions to P&IDs for the HLW Melter Offgas Treatment Process (HOP) System that include: the HLW
Melter Offgas System Melter 1 and Melter 2 Primary Offgas WESP and the HLW Process Vessel Vent
Exhaust System

Submitted by Co-Operator:

Robert Haggard 10/19/2020
Robert D. Haggard Date

Reviewed by ORP Program Office:

TF Digitally signed by Thomas W. Fletcher
Thomas W. Fletcher Date: 2020.11.16 13:46:39 -08'00'
Date

Quarter Ending: Dec. 31, 2020

24590-HLW-PCN-ENV-20-001

RCRA Operating Record Number: R605

Hanford Facility RCRA Permit Modification Notification Form			
Unit:	Permit Part:		
Waste Treatment and Immobilization Plant	Part III, Operating Unit Group 10		
<u>Description of Modification:</u>			
<p>The purpose of this Class ¹¹ modification is to replace the following superseded High-Level Waste (HLW) Piping and Instrumentation Diagrams (P&IDs) in Appendix 10.2 of the Dangerous Waste Permit (DWP). The updated information to these P&IDs is as follows:</p>			
Appendix 10.2: High-Level Waste (HLW) Building Piping & Instrumentation Diagrams			
Replace:	24590-HLW-M6-HOP-00002, Rev 5 - Piping & Instrumentation Diagram - HLW Melter Offgas System Melter 1 Primary Offgas WESP	With:	<ul style="list-style-type: none"> • 24590-HLW-M6-HOP-00002001, Rev 0 – P&ID -HLW Melter Offgas Treatment Process System Melter 1 Primary Offgas WESP • 24590-HLW-M6-HOP-00002002, Rev 0 - P&ID - HLW Melter Offgas Treatment Process System Melter 1 Primary Offgas WESP
Replace	24590-HLW-M6-HOP-20002, Rev 6 - Piping & Instrumentation Diagram - HLW Melter Offgas System Melter 2 Primary Offgas WESP	With:	<ul style="list-style-type: none"> • 24590-HLW-M6-HOP-20002001, Rev 0 - P&ID - HLW Melter Offgas Treatment Process System Melter 2 Primary Offgas WESP • 24590-HLW-M6-HOP-20002002, Rev 0 - P&ID - HLW Melter Offgas Treatment Process System Melter 2 Primary Offgas WESP
Replace	24590-HLW-M6-PVV-00001, Rev 4 - Piping & Instrumentation Diagram - HLW Process Vessel Vent Exhaust System Sheet 1 of 2	With:	<ul style="list-style-type: none"> • 24590-HLW-M6-PVV-00001001, Rev 1 - P&ID - HLW Process Vessel Vent Exhaust System
Replace	24590-HLW-M6-PVV-20001, Rev 2 - Piping & Instrumentation Diagram - HLW Process Vessel Vent Exhaust System Sheet 2 of 2	With:	<ul style="list-style-type: none"> • 24590-HLW-M6-PVV-20001001, Rev 0 - P&ID - HLW Process Vessel Vent Exhaust System
<ul style="list-style-type: none"> • 24590-HLW-M6-HOP-00002: The current version of this drawing in the permit is Revision 5. Revision 6 was issued to document the superseding of the P&ID and creation of the two new P&ID's noted below. Revision 6 also added Note #23, which summarizes the change documents issued against the drawing that are now inactive. Note #23 from 24590-HLW-M6-HOP-00002, Revision 6, is included below for information. 			
<p>23. SUPERSEDED BY 24590-HLW-M6-HOP-00002001 AND -00002002 REV 0. NOTE THAT THE FOLLOWING CHANGE DOCUMENTS HAVE BEEN ISSUED AGAINST THIS DRAWING AND ARE NOW INACTIVE: 24590-HLW-M6LN-HOP-00017, 24590-HLW-M6N-30-00050, 24590-HLW-M6N-HOP-00073, 24590-HLW-M6N-HOP-00138, 24590-HLW-M6N-HOP-00150, 24590-HLW-M6N-HOP-00185, 24590-HLW-M6N-HOP-00211, 24590-HLW-M6N-HOP-00212, 24590-HLW-M6PR-HOP-00002, 24590-WTP-SDDR-MS-11-00204, 24590-HLW-EIE-MS-19-0122 REV. 1, 24590-HLW-EIE-MS-19-0215 REV 0, AND 24590-HLW-EIE-SYSE-19-0008 REV 0.</p>			

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24590-HLW-M6-HOP-00002 included design information for both the Melter 1 WESP and WESP Bulge Inlet Air Heater HOP-HTR-00003. The new P&IDs 24590-HLW-M6-HOP-00002001/00002002 break out the Melter 1 WESP and WESP Bulge Inlet Air Heater onto two separate drawings (including relevant interface references), and reflect major design updates which reference the change documents and supporting design information listed in the notes of each new P&ID for basis/detail.

- 24590-HLW-M6-HOP-00002001 – updates the Melter 1 WESP Bulge Inlet Air Heater (HOP-HTR-00003) per the change documents included in Note 16
 - 24590-HLW-M6-HOP-00002002 – expands the Melter 1 WESP per the change documents included in Note 19
- 24590-HLW-M6-HOP-20002: The current version in the permit is Revision 6. Revision 7 was issued to document the superseding of the P&ID and creation of the two new P&ID's noted below. Revision 7 also added Note #24, which summarizes the change documents issued against the drawing that are now inactive. Note #24 from 24590-HLW-M6-HOP-20002, Revision 7, is included below for information.

**24. SUPERSEDED BY 24590-HLW-M6-HOP-20002001 AND -20002002
REV 0. NOTE THAT THE FOLLOWING CHANGE DOCUMENTS HAVE BEEN
ISSUED AGAINST THIS DRAWING AND ARE NOW INACTIVE:
24590-HLW-M6LN-HOP-00017, 24590-HLW-M6N-30-00050,
24590-HLW-M6N-HOP-00073, 24590-HLW-M6N-HOP-00140,
24590-HLW-M6N-HOP-00194, 24590-HLW-M6N-HOP-00211,
24590-HLW-M6N-HOP-00212, 24590-HLW-M6PR-HOP-00003,
24590-WTP-SDDR-MS-11-00204, 24590-HLW-EIE-MS-19-0122 REV 1,
24590-HLW-EIE-MS-19-0215 REV 0, AND
24590-HLW-EIE-SYSE-19-0008 REV 0.**

24590-HLW-M6-HOP-20002 included design information for both the Melter 1 WESP and WESP Bulge Inlet Air Heater HOP-HTR-00006. The new P&IDs 24590-HLW-M6-HOP-20002001/20002002 break out the Melter 1 WESP and WESP Bulge Inlet Air Heater onto two separate drawings (including relevant interface references) and reflect major design updates which reference the change documents and supporting design information listed in the notes of each new P&ID for basis/detail.

- 24590-HLW-M6-HOP-20002001 – updates the Melter 1 WESP Bulge Inlet Air Heater (HOP-HTR-00006) per the change documents included in Note 16
 - 24590-HLW-M6-HOP-20002002 – expands the Melter 1 WESP per the change documents included in Note 19
- 24590-HLW-M6-PVV-00001: The current version of this drawing in the permit is Revision 4. Revision 5 was issued to document the superseding of the P&ID and creation of the new P&ID noted below. Revision 5 also added Note #18, which summarizes the change documents issued against the drawing that are now inactive. Note #18 from 24590-HLW-M6-PVV-00001, Revision 5, is included below for information.

**18. SUPERSEDED BY 24590-HLW-M6-PVV-00001001 REV 0. NOTE THAT
THE FOLLOWING CHANGE DOCUMENTS HAVE BEEN ISSUED AGAINST
THIS DRAWING, AND ARE NOW INACTIVE: 24590-HLW-M6N-30-00045,
24590-HLW-M6LN-PVV-00001, 24590-HLW-M6N-PVV-00002, -00003,
-00012, -00014, -00016, -00028, 24590-HLW-M6PR-PVV-00001, AND
24590-WTP-EIE-MS-14-0003 REV. 0.**

24590-HLW-M6-PVV-00001 has been superseded by 24590-HLW-M6-PVV-00001001.

- 24590-HLW-M6-PVV-00001001, Rev. 0 of the new drawing was issued for Construction per Note 10 on the drawing. Rev. 0 is not the current version, but it is included with this PCN to illustrate/clarify the content of Rev. 0, as the major changes from superseded 24590-HLW-M6-PVV-00001 are bubbled.
- HLW-M6-PVV-00001001, Rev. 1 is the current version and updates relative to Revision 0 are bubbled and change references/details are identified in Note 13.

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- 24590-HLW-M6-PVV-20001: The current version of this drawing in the permit is Revision 2. Revision 3 was issued to document the superseding of the P&ID and creation of the new P&ID noted below. Revision 3 also added Note #15, which summarizes the change documents issued against the drawing that are now inactive. Note #15 from 24590-HLW-M6-PVV-20001, Revision 3, is included below for information.

15. SUPERSEDED BY 24590-HLW-M6-PVV-20001001 REV 0. NOTE THAT THE FOLLOWING CHANGE DOCUMENTS HAVE BEEN ISSUED AGAINST THIS DRAWING, AND ARE NOW INACTIVE: 24590-HLW-M6LN-PVV-00001, 24590-HLW-M6N-PVV-00002, -00013, -00014, -00017, -00028, 24590-HLW-M6N-30-00045, 24590-WTP-EIE-MS-14-0003, REV 0, 24590-HLW-EIE-MS-19-0059, REV 0, 24590-HLW-EIE-MS-19-0072, REV 0, 24590-HLW-EIE-MS-19-0122, REV 1, AND 24590-HLW-EIE-SYSE-19-0008, REV 0.

24590-HLW-M6-PVV-20001 has been superseded by 24590-HLW-M6-PVV-20001001. Major changes from the superseded drawing are bubbled and change references/details are identified in Note 10.

WAC 173-303-830 Modification Class:	Class 1	Class 1 ¹	Class 2	Class 3
Please mark the Modification Class:		X		

Enter relevant WAC 173-303-830, Appendix I Modification citation number: NA

Enter wording of WAC 173-303-830, Appendix I Modification citation:

In accordance with WAC-173-303-830(4)(d)(i), this modification notification is requested to be reviewed and approved as a Class 1¹ modification. WAC 173-303-830(4)(d)(i)(A) states, "Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the director may require prior approval."

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

Modification Approved/Concur: Yes Denied (*state reason below*)

Reason for denial:

Reviewed by Ecology:

Schleif,
Stephanie (ECY)

Digitally signed by
Schleif, Stephanie (ECY)
Date: 2021.03.16
16:06:01 -07'00'

S. Schleif *Schleif* Date