U.S. Department of Energy
Hanford Site

September 05, 2023

23-ECD-0047

Addressees – See page 3

Addressees:

HANFORD SITE AIR OPERATING PERMIT SEMI-ANNUAL REPORT FOR JANUARY 1, 2023, THROUGH JUNE 30, 2023, DOE/RL-2023-03

This letter transmits the "Hanford Site Air Operating Permit (AOP) Semiannual Report for January 1, 2023, through June 30, 2023, DOE/RL-2023-03, Revision 0." The report is being submitted as required by the Hanford Site AOP Standard Terms and General Conditions, Section 5.6, and is certified in accordance with Washington Administrative Code (WAC) WAC 173-401-520 by the U.S. Department of Energy (DOE) representative as the responsible official, as defined in WAC 173-401-200(29)(c).

This report provides the following:

- Status of monitoring and reporting requirements.
- Confirmation that required monitoring for specific air emission units was completed for the reporting period and
- A list of permit deviations, summaries of complaint investigations forwarded to DOE by the Washington State Department of Ecology, and a list of monitoring reports submitted during the reporting period.

During the January 1, 2023, through June 30, 2023, reporting period, there were 13 permit deviations, no air emissions complaints, and monitoring was conducted.

If you have any questions, please contact me, or you may contact Glyn D. Trenchard, Assistant Manager for Safety and Environment, at (509) 373-4016.

Sincerely

Brian T. Vance

Digitally signed by Brian T. Vance
Date: 2023.09.05 16:10:53 -07'00'

Brian T. Vance
Manager

ECD:AET

Attachment and cc: See page 2

Richland Operations Office
P.O. Box 550
Richland, Washington 99352

Office of River Protection
P.O. Box 450
Richland, Washington 99352

Attachment:
Hanford Site AOP Semiannual Report
DOE/RL-2023-03, Rev. 0

cc w/attach:
S. D. Berven, WDOH
D. R. Einan, EPA Region 10
K. D. Pepple, EPA Region 10
M. F. Williams, Ecology
Administrative Record
Ecology NWP Library
Environmental Portal, G3-35

cc w/o attach:
B. L. Arthur, WRPS
J. M. Barnett, PNNL
J. Bell, NPT
C. Buck, Wanapum
F. J. Carleo, HMIS
P. J. Clark, WRPS
L. Contreras, YN
C. J. Duchsherer, PNNL
E. A. Garcia, CPCCo
D. D. Heidelberg, HLMI
M. P. Marrott, CPCCo
E. R. McCormick, WDOH
T. M. McDermott, PNSO
M. Murphy, CTUIR
J. B. Pulsipher, Ecology
J. P. Rishel, PNNL
R. S. Scott, BNI
R. J. Utley, WDOH
E. J. Van Mason, HLMI
W. C. Weaver, Ecology

Addressees:

Mr. David Bowen, Program Manager
Nuclear Waste Program
Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Mr. John Martell, Manager
Radioactive Air Emissions Section
Washington State Department of Health
309 Bradley Boulevard, Suite 201
Richland, Washington 99352

Mr. Jim McAuley
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite155
Seattle, Washington 98101

Mr. Rob Rodger, Executive Director
Benton Clean Air Agency
526 South Steptoe Street
Kennewick, Washington 99336

Attachment
23-ECD-0047

Hanford Site Air Operating Permit
Semiannual Report
For January 1, 2023 Through June 30, 2023
DOE/RL-2023-03 Rev. 0

(41 pages including cover sheet)

DOE/RL-2023-03
Revision 0

Hanford Site Air Operating Permit Semiannual Report for January 1, 2023 through June 30, 2023

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

U.S. DEPARTMENT OF ENERGY | Richland Operations Office

P.O. Box 550
Richland, Washington 99352

DOE/RL-2023-03
Revision 0

Hanford Site Air Operating Permit Semiannual Report for January 1, 2023 through June 30, 2023

M. J. Demiter
Hanford Mission Integration Solutions (HMIS)

Date Published
August 2023

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

U.S. DEPARTMENT OF ENERGY | Richland Operations Office
P.O. Box 550
Richland, Washington 99352

APPROVED
By Lynn M Ayers at 10:16 am, Aug 07, 2023

Release Approval Date

TRADEMARK DISCLAIMER

Certification For

Hanford Site Air Operating Permit
Number 00-05-006 Renewal 3

Semiannual Report for January 1, 2023 through June 30, 2023

Certification:

In accordance with WAC 173-401-200(29)(c) as the responsible official, I certify, pursuant to WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information provided in this Semiannual Report are true, accurate, and complete.

Brian T. Vance Digitally signed by Brian T. Vance
Date: 2023.09.05 16:11:23 -07'00'

Brian T. Vance, Manager Date
U.S. Department of Energy
Richland Operations Office
Office of River Protection

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EXECUTIVE SUMMARY

The Hanford Site Air Operating Permit requires submittal of a semiannual report to the regulatory agencies by March 15 and September 15 each year. The report provides the following:

a) Status on monitoring and reporting requirements

b) Confirmation that required monitoring for specific air emissions units was completed for the reporting period

c) A list of any permit deviations, summaries of complaint investigations formally forwarded to the U.S. Department of Energy by the Washington State Department of Ecology, and monitoring reports or permit deviation documentation submitted during the reporting period.

The permit requires the report to be certified for truth, accuracy, and completeness by a Responsible Official. For the January 1, 2023, through June 30, 2023, reporting period there were 13 permit deviations, no air emission complaints, and required monitoring was conducted.

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CONTENTS

TABLES

TRADEMARK

GUZZLER is a trademark of Guzzler Manufacturing, Inc., Streator, Illinois

1.0 INTRODUCTION

The Hanford Site Air Operating Permit (AOP) Number 00-05-006 became effective on August 1, 2019. One condition contained in the AOP Standard Terms and General Conditions (STGC) Section 5.6, "Semiannual Reporting," is the requirement to submit semiannual reports by March 15 and September 15 each year. The reports are required to be certified by a Responsible Official for truth, accuracy, and completeness.

Copies of semiannual reports are transmitted to the Washington State Department of Ecology (Ecology), the Washington State Department of Health (WDOH), the Benton Clean Air Agency, and the U.S. Environmental Protection Agency Region 10.

This semiannual report contains information from January 1, 2023, through June 30, 2023. AOP STGC Section 5.6, "Semiannual Reporting," identifies the following content for inclusion in the semiannual report:

a) "Reference to reports submitted to the regulatory agencies as required by section 5.16."

   This information is provided in Section 2.0 of the semiannual report.

b) "Reports of any required monitoring not previously submitted or reference to reports of required monitoring that were submitted previously during the reporting period."

   This information is provided in Section 4.0 of the semiannual report.

c) "A summary of any substantiated air emission complaint investigations(s) required in Section 1.4 of Attachment 1 and issued during the reporting period."

   This information is provided in Section 3.0 of the semiannual report.

d) "For all minor radioactive emission units (potential to emit <0.1 mrem to the maximally exposed individual listed in Attachment 2), a general statement confirming that any required monitoring was conducted to verify low emissions during the reporting period for those emission units with specific periodic monitoring required during that period. For all emission units with continuous monitoring, a general statement will be provided stating that required monitoring operated continuously."

   This information is provided in Section 5.0 of the semiannual report.

e) "Emission unit(s) that operated for any part of the calendar year and were not closed per WAC 246-247-080(6) (reference to FF-01 Attachment 2), will have monitoring data reported in the annual NESHAP report (Section 5.11). Diffuse and Fugitive minor emission units listed in Attachment 2 are not required to be reported on except annually as a composite portion of the annual NESHAP report."

   Diffuse and fugitive emission units are not included in the semiannual report.

f) "List any new regulatory orders, (e.g., Notice of Construction) imposed during the reporting period by Ecology or Health."

   This information is provided in Section 6.0 of the semiannual report.

2.0 DEVIATION REPORTS

Table 1 contains reports or notifications submitted directly to the regulatory agencies during this reporting period as required by AOP STGC Section 5.16, "Permit Deviation Reporting." The date column represents the date the agency was notified. Additional detail is available in the reference if one exists.

Table 1. Reports/Notifications for the Period January 1, 2023, through June 30, 2023. (3 Sheets)

Date	Agency	Area	Location	Reference Number	Description
1/23/2023	WDOH	200E	PUREX	NA	The PUREX Stack (291-A-1) sampling system failed when the connection between network workstations at MO294 and PUREX failed. The system was restored the same day.
1/23/2023	WDOH	200W	SY Farm	TOC-ENV-NOT-2023-4676	On 1/22/2023 at 11:09, the 241-SY Tank Farm (296-S-27) had an unplanned shutdown of B Train. The 241-SY A Train (296-S-26) was started at 13:31. At 19:44, the A Train Record Sampler and CAM were determined not to be operating. The A Train Record Sampler and CAM were both operating at 20:38. From 13:31 to 20:38, the A Train Record Sampler and CAM had an unplanned failure, and the failure lasted more than 4 hours. The cause of the failure was the sampling pump shut down after startup at 13:31.
2/21/2023	WDOH	200E	WESF	NA	The WESF Stack (296-B-10) experienced an unplanned outage caused when high winds toppled multiple power poles in 200-East Area. The stack was restored that day.
2/21/2023	WDOH	200E	PUREX	NA	The PUREX Stack sampling system (291-A-1) experienced an unplanned outage caused when high winds toppled multiple power poles in 200-East Area. The stack was restored on 2/22/2023.
2/25/2023	WDOH	200E	WESF	NA	The WESF Stack (296-B-10) experienced an unplanned outage from a local power cubical failure. The component was replaced and the system was restored on 2/26/2023.
3/28/2023	Ecology	200W	SY Farm	TOC-ENV-NOT-2023-4683	The results of the Baseline Assessment were not submitted to Ecology within 90 days of Baseline Assessment completion as required in DE11NWP-001, Rev. 4, Section 2.5. Baseline sampling was completed in March 2022. The results were received in late July 2022. The sampling results were submitted with this notification.

Table 1. Reports/Notifications for the Period January 1, 2023, through June 30, 2023. (3 Sheets)

Date	Agency	Area	Location	Reference Number	Description
4/13/2023	WDOH	200E	AW Farm	TOC-ENV-NOT-2023-4687	The record sampler flow indicator for AW Farm primary exhauster A Train (296-A-46) malfunctioned at approximately 22:35 on 4/10/2023. Operations did not become aware of the issue until 09:30 on 4/12/2023 and the exhauster ran for more than 4 hours with no direct measurement of sample flow (degraded condition). However, continuous sample flow was indicated by valve position and pump status. Operations had to delay switching to B Train due to required maintenance. The switch to B Train occurred at 13:00 on 4/12/2023. Operations has initiated the repair of the flow indicator on A Train.
4/18/2023	WDOH	200W	WRAP	NA	Zone II of (296-W-4) stack was shut down for software updates. Zone I continued to run but flow rates were below our qualification window and oversampling was occurring. The system was restored on 4/26/2023.
5/20/2023	WDOH	200E	B Plant	NA	The ALARACT 28.2 inspection was missed on 3/13/2023 during planned maintenance outage of B Plant (296-B-1). No contamination was found on subsequent inspections.
5/10/2023	WDOH	200E	CSB	NA	An unplanned outage occurred when the (296-H-212) stack monitoring system failed to start after a planned outage. The system was restored on 5/11/2023.
5/22/2023	WDOH	200E	PUREX	NA	The PUREX Stack sampling system (291-A-1) experienced an unplanned outage on 5/21/2023 that was caused by a power outage in 200-East Area. The stack was restored on 5/21/2023.
5/22/2023	WDOH	200E	WESF	NA	The WESF Stack (296-B-10) experienced a planned maintenance outage on 5/22/23 to support HEPA filter changes and electrical substation inspection. The stack was restored on 5/25/2023.
6/5/2023	WDOH	200W	CWC	NA	Contamination was found while moving pallets of waste drums that exceeded EU 439 Condition 4, the removable or transferrable alpha contamination level >2,000 dpm/100 cm^2. A 10-day report was requested by WDOH and delivered on 6/15/2023.

Table 1. Reports/Notifications for the Period January 1, 2023, through June 30, 2023. (3 Sheets)

Date	Agency	Area	Location	Reference Number	Description

ALARACT = As Low as Reasonably Achievable Control Technology
CAM = Continuous Air Monitor
CSB = Canister Storage Building
CWC = Central Waste Complex
dpm = disintegrations per minute
Ecology = Washington State Department of Ecology
EU = emission unit
HEPA = high-efficiency particulate air
NA = not applicable
PUREX = Plutonium Uranium Extraction Plant
WDOH = Washington State Department of Health
WESF = Waste Encapsulation and Storage Facility
WRAP = Waste Receiving and Processing Facility

3.0 AIR EMISSION COMPLAINT INVESTIGATIONS

No substantiated air emission complaints were received by the U.S. Department of Energy, Richland Operations Office or by the U.S. Department of Energy, Office of River Protection from Ecology as specified in the AOP Attachment 1, Section 1.4 during this reporting period.

4.0 PERMIT REQUIRED MONITORING REPORTS

Table 2 lists the required monitoring reports submitted during the reporting period.

Table 2. Permit Required Monitoring Reports. (2 Sheets)

Date	Title
1/30/23	HMIS-2201592R3 REISSUE, 2023, "Contract Deliverable CD0335 – Quarterly High-Efficiency Particulate Air Radioactive Air Emission Units Report," external letter to J. P. Martell, Washington State Department of Health, from D. D. Teel, Hanford Mission Integration Solutions, LLC, Richland, Washington, January 30
2/15/23	TOC-ENV-NOT-2023-4680, "Analytical Results from AY/AZ Stack Sampling/Monitoring During AX-101 Retrieval"
3/1/23	23-ECD-000598, 2023; "Hanford Site Air Operating Permit Semiannual Report for July 1, 2022, through December 31, 2022, DOE/RL-2023-01," external letter to D. B. Bowen, Washington State Department of Ecology, J. P. Martell, Washington State Department of Health, J. McAuley, U.S. Environmental Protection Agency, and R. Rodger, Benton Clean Air Agency, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, March 1

Table 2. Permit Required Monitoring Reports. (2 Sheets)

Date	Title
3/8/23	Greenhouse Gas Emissions Report for the Hanford Site, Calendar Year 2022 (documented in HMIS-2301093, "Contract Deliverable CD0320, Greenhouse Gas Emissions Report")
3/14/23	DOE/RL-2023-06, Rev. 0, "Air Emissions Inventory for the Hanford Site, Calendar Year 2022" (also documented in HMIS-2301089, "Contract Deliverable CD0322, Air Emissions Inventory Report")
3/30/23	HMIS-2301097, 2023, "Contract Deliverable CD0317 – Annual Portable/Temporary Radioactive Air Emission Unit (PTRAEU) Report," external letter to J. P. Martell, Washington State Department of Health, from D. D. Teel, Hanford Mission Integration Solutions, LLC, Richland, Washington, March 30
4/11/23	TOC-ENV-NOT-2023-4685, "Analytical Results from AY/AZ Stack Sampling/Monitoring During AX-101 Retrieval"
4/25/23	HMIS-2301772, 2023, "Contract Deliverable CD0335 – Quarterly High-Efficiency Particulate Air Radioactive Air Emission Units Report," external letter to J. P. Martell, Washington State Department of Health, from D. D. Teel, Hanford Mission Integration Solutions, LLC, Richland, Washington, April 25
5/30/23	23-ECD-001782, 2023, "Contract No: 89303320DEM000030 – Transmittal of the Compliance Log to Satisfy Condition 10 of Notice of Construction 1067," external letter to J. P. Martell, Washington State Department of Health, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, May 30
6/9/23	23-ECD-002160, 2023, "U.S. Department of Energy-2023-07, Revision 0, Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2022," external letter to J. P. Martell, Washington State Department of Health, and K. Viswanathan, U.S. Environmental Protection Agency, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, June 9

5.0 STATUS OF REQUIRED MONITORING

Table 3 contains the status of required monitoring during this reporting period for minor radioactive emission units and all emission units with continuous monitoring requirements. The performance of monitoring is not required if the unit did not operate during the reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-241C111-001 (241-C-111)	1	Smear survey, every 365 days	Yes	
W-296P045-001 (296-P-45)	50	Record Sample, Continuous	NA	Unit did not operate during the reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-296P022-001 (296-P-22)	53	Record Sample, 1-week sample/4 times per year	Yes	
P-296SY-001 (296-P-23)	56	Record Sample, 1-week sample/4 times per year	NA	Unit did not operate during the reporting period.
W-296P043-001 (296-P-43)	57	Record Sample, Continuous	NA	Unit did not operate during the reporting period.
W-296P044-001 (296-P-44)	58	Record Sample, Continuous	NA	Unit did not operate during the reporting period.
S-296S025-001 (296-S-25)	59	Record Sample, 1-week sample/4 times per year	NA	Unit did not operate during the reporting period.
P-241T105-001 P-241T106-001 P-241T109-001 P-241T102-001 P-241T107-001 P-241T111-001 P-241T104-001 P-241T112-001 P-241T108-001 P-241T203-001 P-241T204-001 P-241T110-001 P-241T202-001 P-241T103-001 P-241T101-001 P-241T201-001	65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	Smear survey, every 365 days	Yes	
P-241TY106-001 P-241TY102-001 P-241TY105-001 P-241TY104-001 P-241TY103-001 P-241TY101-001	81 82 83 84 85 86	Smear survey, every 365 days	Yes	
P-241A103-001 P-241A104-001 P-241A102-001 P-241A105-001 P-241A101-001	87 88 90 91 92	Smear survey, every 365 days	Yes	
P-296A042-001 (296-A-42)	93	Record Sample, Continuous	Yes	
P-241A106-001 (241-A-106)	94	Smear survey, every 365 days	Yes	
P-204AR-001 (296-A-26)	96	Record Sample, 1-week sample/4 times per year (if operated other than for HEPA filter testing)	NA	Unit did not operate during reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-241U103-001	97	Smear survey, every 365 days	Yes	
P-241U108-001	98			
P-241U107-001	99			
P-241U203-001	100			
P-241U102-001	101			
P-241U201-001	102			
P-241U101-001	103			
P-241U204-001	104			
P-241U109-001	105			
P-241U202-001	106			
P-241U111-001	107			
P-241U112-001	108			
P-241U104-001	109			
P-241U110-001	110			
P-241U106-001	111			
P-241U105-001	112			
P-241TX117-001	113	Smear survey, every 365 days	Yes	
P-241TX107-001	114			
P-241TX112-001	115			
P-241TX105-001	116			
P-241TX113-001	117			
P-241TX104-001	118			
P-241TX114-001	119			
P-241TX103-001	120			
P-241TX110-001	121			
P-241TX116-001	122			
P-241TX108-001	123			
P-241TX102-001	124			
P-241TX115-001	125			
P-241TX106-001	126			
P-241TX101-001	127			
P-241TX109-001	128			
P-241TX118-001	129			
P-241TX111-001	130			
P-241S104-001	131	Smear survey, every 365 days	Yes	
P-241S101-001	132			
P-241S103-001	133			
P-241S102-001	134			
P-241S108-001	135			
P-241S109-001	136			
P-241S105-001	137			
P-241S110-001	138			
P-241S106-001	139			
P-241S107-001	140			

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-242A-002 (296-A-22)	142	Record Sample. One week sample per quarter, and continuous sampling during campaign	Yes	
P-242AL44-001 (LERF Basin #44)	146	Near Field Environmental Sampling. Air - Every 2 weeks continuous/ deposition - annually	Yes	
P-242AL43-001 (LERF Basin #43)	147	Near Field Environmental Sampling. Air - Every 2 weeks continuous/ deposition - annually	Yes	
P-242AL42-001 (LERF Basin #42)	148	Near Field Environmental Sampling. Air - Every 2 weeks continuous/ deposition - annually	Yes	
P-296A028-001 (296-A-28)	156	Record Sample, 1-week sample/4 times per year	Yes	
P-242S-001 (296-S-18)	163	Record Sample, 1-week sample/4 times per year	NA	Unit closed April 11, 2018, per AIR 18-401.
P-296A020-001 (296-A-20)	174	Record Sample, 1-week sample/4 times per year	Yes	
P-296W004 001 (296-W-4)	193	Record Sample, Continuous, collect samples bi-weekly at a minimum	Yes	
P-241SX115-001 P-241SX113-001	200 201	Smear survey, every 365 days	Yes	
P-241S111-001	202	Smear survey, every 365 days	Yes	
P-241S-001	203	Smear survey, every 365 days	Yes	
P-296A041-001 (296-A-41)	205	Record Sample, 1-week sample/4 times per year	No[b]	Will be completed in the second half of 2023.
P-296A043-001 (296-A-43)	216	Record Sample, 1-week sample/4 times per year	Yes	
P-296A018-001 (296-A-18)	217	Record Sample, 1-week sample/4 times per year	Yes	
P-296A019-001 (296-A-19)	218	Record Sample, Continuous	NA	Unit did not operate during the reporting period.
P-296A030-001 (296-A-30)	228	Record Sample, 1-week sample/4 times per year	No[b]	Will be completed in the second half of 2023.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-241C107-001 P-241C108-001 P-241C112-001 P-241C201-001 P-241C204-001 P-241C102-001 P-241C203-001 P-241C110-001 P-241C109-001 P-241C202-001 P-241C101-001	230 231 232 233 235 237 242 244 245 246 247	Smear survey, every 365 days	Yes	
S-296S021-001 (296-S-21)	254	Record Sample, Continuous	Yes	
P-241BX104-001 P-241BX110-001 P-241BX103-001 P-241BX107-001 P-241BX101-001 P-241BX112-001 P-241BX106-001 P-241BX102-001 P-241BX109-001 P-241BX111-001 P-241BX108-001	255 256 257 258 259 260 261 262 263 264 265	Smear survey, every 365 days	Yes	
P-241B105-001 P-241B201-001 P-241B108-001 P-241B101-001 P-241B102-001 P-241B204-001 P-241B104-001	266 267 268 269 270 271 272	Smear survey, every 365 days	Yes	
P-241BX105-001	273	Smear survey, every 365 days	Yes	
P-241B112-001 P-241B107-001 P-241B111-001 P-241B109-001 P-241B110-001 P-241B103-001 P-241B202-001 P-241B106-001 P-241B203-001	274 275 276 277 278 279 280 281 282	Smear survey, every 365 days	Yes	

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-241BY101-001 P-241BY105-001 P-241BY106-001 P-241BY102-001 P-241BY112-001 P-241BY103-001 P-241BY104-001 P-241BY109-001 P-241BY108-001 P-241BY111-001 P-241BY110-001 P-241BY107-001	283 284 285 286 287 288 289 290 291 292 293 294	Smear survey, every 365 days	Yes	
P-2025E ETF (296-E-1) (Effluent Treatment Facility)	301	Four-week sample/year on the stack	Yes	
P-241AX104-001 P-241AX102-001 P-241AX103-001 P-241AX101-001	302 303 304 305	Smear survey, every 365 days	Yes	
P-291T001-001 (291-T-1)	314	Record Sample, Continuous	Yes	
P-296T007-001 (296-T-7)	315	Record Sample, Continuous, collected monthly when ventilation system is operating (AIR 17-115 Condition 7)	Yes	
P-291S001-001 (291-S-1)	332	Record sample, 4-week sample/year	NA	This emission unit was transitioned to CERCLA authority in spring 2019 (19-ESQ-0086).
P-296S016-001 (296-S-16)	337	Record Sample, 1-week sample/4 times per year	No[b]	Will be completed in the second half of 2023.
P-296B010-001 (296-B-10)	340	Record Sample, 4-week sample/year	Yes	
EP-325-01-S	361	Record Sample - Continuous; Tritium by silica gel - monthly	Yes	

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-291A001-001 (291-A-1)	369	Record Sample, Continuous	No	Unplanned outages occurred: - January 20, 2023, sampling system failed when network connection failed, restored 1/23 - February 21, 2023, for high winds and downed power poles and restored that next day - May 22, 2023, a power surge caused the Unplanned outages. The system was restored that day.
P-437MN&ST-001 (437-MN&ST)	385	Record Sample, 4-week sample/year	Yes	Sample is confirmed to have been taken during the first half of 2023.
P-FFTFRESB-001 (FFTF-RE-SB)	395	Record Sample, 4-week sample/year or continuously whichever is less (if operated)	NA	Unit did not operate during the reporting period.
P-FFTFHTTR-001 (FFTF-HT-TR)	396	Record Sample, 4-week sample/year or continuously whichever is less (if operated)	NA	Unit did not operate during the reporting period.
P-FFTFCBEX-001 (FFTF-CB-EX)	397	Annual (calculation)	Yes	
FFTF-402-1 (Sodium Storage Facility)	398	See AIR 17-707, Condition 5	Yes	Periodic Confirmatory Monitoring done per Condition 5 of the license.
P-437-002 (437-1-61)	399	Record Sample, 4-week sample/year	Yes	
P-296B001-001 (296-B-1)	402	Record Sample, Continuous	NA	Unit did not operate during the reporting period
EP-331-01-V (331 Life Sciences Lab)	412	Record Sample, Continuous	Yes	
P-296H212 001 (296-H-212)	435	Record Sample, Continuous	Yes	Unplanned outage on May 11, 2023
S-296S023-001 (296-S-23)	438	One NDA every 2 years	NA	NDA not required, AIR 20-303, NOC 1570, March 5, 2020.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
Hanford Sitewide type-1, type-2, type-3 (PTRAEUs)	447	Annual unless specified by the notice of construction; NDA, record sampler, smears of the exhaust port or continuous air monitoring	NA	Unit did not operate during the reporting period.
Hanford Sitewide Vented Containers	448	Environment Sampling, Air every 2 weeks continuous/deposition – annually	Yes	
200 Area Interim Storage Area	454	Smear survey – annual	No[b]	Will be completed in the second half of 2023.
Hanford Sitewide W-PORTEX 007 (HEPA Vacuums)	455	See AIR 17-113, Condition 5	Yes	
W-PORTEX 011 (Permacon Unit)	461	Quarterly for 2 weeks of operations	NA	Unit did not operate during the reporting period.
Hanford Sitewide Guzzler-001 (Guzzler™)[c]	476	Radiation surveys, NDA testing HEPAs when replaced, and annually screening the HEPA filtration system	Yes	
W-296P047-001 (296-P-47)	498	Record sample, Continuous	NA	Unit did not operate during reporting period.
P-241C-004 (241-C-106)	712	Smear survey, every 365 days	Yes	
P-244CR-002 (244-CR Vault Passive Filter A)	713	Smear survey, every 365 days	Yes	
P-241C-002 (241-C-104)	716	Smear survey, every 365 days	Yes	
P-241C-003 (241-C-105)	717	Smear survey, every 365 days	Yes	
P-296A044-001 (296-A-44)	735	Record sample, Continuous	Yes	
P-296A045-001 (296-A-45)	736	Record sample, Continuous	Yes	
P-241C103-001 (241-C-103)	737	Smear survey, every 365 days	Yes	
P-244A-002 (244-A Primary HEPA)	738	Smear survey, every 365 days	Yes	

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-244BX-002 (244-BX Primary HEPA)	740	Smear survey, every 365 days	Yes	
P-244S-002 (244-S Primary HEPA)	742	Smear survey, every 365 days	Yes	
P-244TX-002 (244-TX Primary HEPA)	744	Smear survey, every 365 days	Yes	
W-296P048-001 (296-P-48)	749	Record sample, Continuous	NA	Unit did not operate during reporting period.
P-241AZ301-001 (241-AZ-301)	751	Smear survey, every 365 days	Yes	
Drum Venting System – Active Vent	755	Smears of the exhaust vent at the end of each shift of operation	NA	Unit did not operate during the reporting period.
Drum Venting System – Passive Vent	756	Smears of the exhaust vent at the end of each shift of operation	NA	Unit did not operate during the reporting period.
218W4B-Alpha-1 Caisson	793	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-Alpha-2 Caisson	794	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-Alpha-3 Caisson	795	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-Alpha-4 Caisson	796	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
218W4B-#1 Caisson	798	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-#2 Caisson	799	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-#3 Caisson	800	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-#4 Caisson	801	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-#5 Caisson	802	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-#6 Caisson	803	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
218W4B-UNI#1 Caisson	804	Smear sample upstream of HEPA filter, near facility monitoring network samples collected and analyzed annually	Yes	
P-296A046-001 (296-A-46)	855	Record sample, Continuous	Yes	
P-296A047-001 (296-A-47)	856	Record sample, Continuous	Yes	
W-296P049-001 (296-P-49)	885	Record sample, Continuous	Yes	

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
W-296P050-001 (296-P-50)	886	Record sample, Continuous	Yes	
Hanford Sitewide Tanker Loading of Contaminated Waste Water	888	As listed in the Conditions and Limitations; AIR 09-705, Condition 5	Yes	
P-241UX302A-001 (241-UX-302A)	894	Smear survey, every 365 days	Yes	
P-241ER311-001 (ER311)	910	Smear survey, every 365 days	Yes	
P-244A-003 (244-A Annulus HEPA)	912	Smear survey, every 365 days	Yes	
P-244BX-003 (244-BX Annulus HEPA)	922	Smear survey, every 365 days	Yes	
P-244S-003 (244-S Annulus HEPA)	959	Smear survey, every 365 days	Yes	
P-244TX-003 (244-TX Annulus HEPA)	969	Smear survey, every 365 days	Yes	
P-241U301B-001 (241-U-301B)	1129	Smear survey, every 365 days	Yes	
P-241AZ154-001 (241-AZ-154)	1130	Smear survey, every 365 days	Yes	
FFTF PTRAEUs	1176	Samples of waste water, prior to transfer or once per calendar year during operations	NA	Unit did not operate during the reporting period.
Drum Venting System 2	1181	Smears of exhaust vent at end of each shift of operation	NA	Unit did not operate during the reporting period.
S-MO444-001 (WRAP Head Space Gas Sampling)	1183	Per calculations in AIR 17-207	NA	Unit did not operate during the reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-241SX107-001 P-241SX108-001 P-241SX109-001 P-241SX110-001 P-241SX111-001 P-241SX112-001 P-241SX114-001 P-241SX101-001 P-241SX102-001 P-241SX103-001 P-241SX104-001 P-241SX105-001 P-241SX106-001	1207 1208 1209 1210 1211 1212 1213 1219 1220 1221 1222 1223 1224	Smear survey, every 365 days	Yes	
P-241S304-001 (241-S-304)	1227	Smear survey, every 365 days	Yes	
P-6241V-001 (6241-V Vent Station Cross Site)	1228	Smear survey, every 365 days	Yes	
P-241A417-001 (241-A-417)	1229	Smear survey, every 365 days	Yes	
P-6241A-001 6241-A Diversion Box	1230	Smear survey, every 365 days	Yes	
P-241EW151-001 (241-EW-151)	1231	Smear survey, every 365 days	Yes	
P-241S302-001 (240-S-302)	1232	Smear survey, every 365 days	Yes	
W-TRUDECON-001	1243	Radiological field surveys, per the sitewide ambient monitoring program	NA	Unit did not operate during the reporting period.
W-TRUDECON-002	1244	Radiological field surveys, per the sitewide ambient monitoring program	NA	Unit did not operate during the reporting period.
Decon Trailer 200-East (Intermittent. Powered Exhaust)	1289	Radiological field surveys and near field monitoring	NA	Unit did not operate during the reporting period.
Decon Trailer 200-West (Intermittent. Powered Exhaust)	1290	Radiological field surveys and near field monitoring	NA	Unit did not operate during the reporting period.
Decon Trailer 200-East (Collection Tank Vent)	1291	Radiological field surveys and near field monitoring	NA	Unit did not operate during the reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
Decon Trailer 200-West (Collection Tank Vent)	1292	Radiological field surveys and near field monitoring	NA	Unit did not operate during the reporting period.
W-296P107-001 (296-P-107)	1293	Record sample, Continuous	NA	Unit did not operate during the reporting period.
P-242A-003 (296-A-21A)	1294	Record Sample, 1-week sample/4 times per year	Yes	
W-PES-001 (Portable Enclosure System)	1322	Destructive Examination of filters, once per year minimum	NA	Unit did not operate during the reporting period.
296-P-53 (Vapor Extraction System)	1326	Smear survey, 1 per month during operation	NA	Unit did not operate during the reporting period.
296-P-52 (Next Generation Retrieval - Active)	1327	Destructive examination of filters, 1 per month anytime it is operated	NA	Unit did not operate during the reporting period.
P-296A048-001 (296-A-48)	1328	Record sample, Continuous	Yes	
P-296A049-001 (296-A-49)	1329	Record sample, Continuous	Yes	
P-296S26-001 (296-S-26)	1335	Record sample, Continuous	No	Unplanned shutdown – see Reports Section 2.0
P-296S27-001 (296-S-27)	1342	Record sample, Continuous	No	Unplanned shutdown – see Reports Section 2.0
W-MARS-003 (W-MARS-003)	1371	Smear survey, every 365 days	NA	Unit closed January 15, 2019, per AIR 19-119.
W-MARS-004 (W-MARS-004)	1384	Smear survey, every 365 days	NA	Unit closed January 15, 2019, per AIR 19-119.
A-AZ301 Tanker-001	1406	Smear survey, every 365 days	No[b]	Will be completed in the second half of 2023.
P-296P035-001 (High Purge Gas Core Sampling)	1413	Nondestructive assay, sample of the filter, or other approved method, annual if used during the year	NA	Unit did not operate in high purge gas mode during the reporting period.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
WESF Hot Cells F and G and Containment Enclosures	1426	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
WESF Hot Cell A	1427	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
WESF Hot Cell B	1428	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
WESF Hot Cell C	1429	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
WESF Hot Cell D and E	1430	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
WESF K3N and containment enclosures	1431	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
WESF K3 filter pit containment enclosures	1432	When used, daily smears and fixed head sampler	NA	This emission unit was closed as part of the latest WESF license revision package (21-ECD-001675). Acceptance of this application and the subsequent closures occurred as a result of the issuance of the final license (AIR 21-910).
Tank Farm Guzzler (Guzzler™)[b]	1449	Radiation surveys, NDA testing HEPAs when replaced, and annually screening the HEPA filtration system	NA	Unit did not operate during the reporting period.
P-202A Tunnel #1-001 (202A Tunnel #1-001)	1471	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-002 (202A Tunnel #1-002)	1472	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-003 (202A Tunnel #1-003)	1473	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-004 (202A Tunnel #1-004)	1474	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-005 (202A Tunnel #1-005)	1475	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-006 (202A Tunnel #1-006)	1476	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-007 (202A Tunnel #1-007)	1477	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-008 (202A Tunnel #1-008)	1478	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.

Table 3. Status of Required Monitoring. (16 Sheets)

Emission Point (Common Name)	EU ID[a]	Required Monitoring	Monitoring Completed? (Yes, No, NA)	Comment
P-202A Tunnel #1-009 (202A Tunnel #1-009)	1479	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.
P-202A Tunnel #1-010 (202A Tunnel #1-010)	1480	Daily smears and final composite of filter samples for analysis	NA	Point source license was closed and established as a fugitive source (EU 1015), via letter 18-ESQ-0040.

[a] Emission Unit Identification Number.
[b] "No" does not mean out of compliance. "No" indicates the sample was not taken during the reporting period. In this case, the annual sample was taken during the previous reporting period, or will be taken during the next reporting period. Compliance is on a calendar year basis.
[c] Guzzler™ is a trademark of Guzzler Manufacturing, Inc., Streator, Illinois.

CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act*
ETF = Effluent Treatment Facility
EU = Emission Unit
FFTF = Fast Flux Test Facility
HEPA = high-efficiency particulate air
ID = identification
LERF = Liquid Effluent Retention Facility
MARS = Mobile Arm Retrieval System
NA = not applicable
NDA = nondestructive assay
NOC = notice of construction
PTRAEU = portable temporary radioactive air emission unit
WESF = Waste Encapsulation and Storage Facility
WRAP = Waste Receiving and Processing Facility

6.0 REGULATORY APPROVALS ISSUED DURING THE REPORTING PERIOD

Table 4 lists the regulatory approvals issued by WDOH and Ecology during this reporting period. The information contained in Table 4 is an AOP permit-only requirement not mandated in WAC 173-401, "Operating Permit Regulation."

Table 4. Regulatory Approvals Issued from January 1, 2023, through June 30, 2023. (2 Sheets)

Letter	Issue Date	Agency	Title/Subject
AIR 23-102	1/26/2023	WDOH	Re: Notice of Transition of the 100 Area Diffuse/Fugitive Emission Unit (EU 689)
AIR 23-306	3/24/2023	WDOH	Re: Conditional Operating License and Conditions of Acceptance for LB-C2 Stack for the C2V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1640)

Table 4. Regulatory Approvals Issued from January 1, 2023, through June 30, 2023. (2 Sheets)

Letter	Issue Date	Agency	Title/Subject
AIR 23-307	3/24/2023	WDOH	Re: Conditional Operating License and Conditions of Acceptance for LB-S1 Stack for the C3V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1641)
AIR 23-308	3/24/2023	WDOH	Re: Conditional Operating License and Conditions of Acceptance for LB-S2 Stack for the C5V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1642)
AIR 23-402	4/13/2023	WDOH	Re: Approval of As Low As Reasonably Achievable Control Technology (ALARACT) Demonstration [ALARACT 33.0]
AIR 23-501	5/8/2023	WDOH	Re: Approval of Notice of Construction (NOC) 1682
23-NWP-066	5/30/2023	Ecology	Re: Issuance of Approval Order DE19NWP-001, Revision 1 for the L-897 Emergency Engine Flexibility Notice of Construction (NOC) Application
23-NWP-073	6/13/2023	Ecology	Re: Issuance of Approval Order DE05NWP-004, Revision 1 for updates to the Integrated Disposal Facility (IDF) Notice of Construction (NOC) Application

Ecology = Washington State Department of Ecology
WDOH = Washington State Department of Health

7.0 ADDITIONAL INFORMATION REQUIRING SUBMITTAL

Table 5. PSD-02-01 Amendment 3 Semiannual Reporting. (3 Sheets)

Permit Condition	Requirement	Compliance Method	Compliance Demonstration		
2	Each diesel fire pump, Type 1 emergency generator, and steam plant boiler shall be fired by ultra-low sulfur diesel fuel with a maximum sulfur content of 0.0015% by weight.	Compliance shall be monitored by including a written statement in each semiannual report of the type of fuel purchased.	Diesel fire pumps, Type 1 emergency diesel generator, and steam-generating boiler operation were fired solely on fuel with a maximum sulfur content of 0.0015 percent by weight.		
8	The operation of the steam-generating boilers shall not exceed an annual aggregated fuel consumption limit of 13,400,000 gallons per year summed daily for the previous 365 days.	Compliance shall be monitored by including a written statement in each semiannual report of the total fuel consumption over the previous 12 months.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Steam Generating Boilers	1,053,454 gallons	2,102,558 gallons

Table 5. PSD-02-01 Amendment 3 Semiannual Reporting. (3 Sheets)

Permit Condition	Requirement	Compliance Method	Compliance Demonstration		
11	The operation of the Type 1 emergency diesel generator shall not exceed 164 hours per year when averaged over 12 consecutive months, calculated once per month.	Compliance shall be monitored by including a written statement in each semiannual report of the hours the Type 1 emergency diesel generator operated in each of the 6 months covered by the report and the summation of hours operated over the previous 12 months.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Type 1 Emergency Diesel Generator	6.7 hours	25.0 hours
15	The operation of each diesel fire pump shall not exceed 230 hours per year averaged over 12 consecutive months, calculated once per month.	Compliance shall be monitored by including a written statement in each semiannual report of the hours the diesel fire pumps operated in each of the 6 months covered by the report and the summation of hours operated over the previous 12 months.	**Pump #**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			A	31.5 hours	70.9 hours
			B	47.1 hours	76.1 hours
17.3 v)	Total NO_x emissions for the Type 1 emergency diesel generator.	Calculated emissions in each semiannual report.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Type 1 Emergency Diesel Generator	0.20 tons	0.74 tons
17.3 vi)	Total PM_{10} emissions for the Type 1 emergency diesel generator.	Calculated emissions in each semiannual report.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Type 1 Emergency Diesel Generator	0.01 tons	0.03 tons
17.3 v)	Total NO_x emissions for the steam plant boilers.	Calculated emissions in each semiannual report.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Steam Plant Boilers	6.64 tons	13.25 tons

Table 5. PSD-02-01 Amendment 3 Semiannual Reporting. (3 Sheets)

Permit Condition	Requirement	Compliance Method	Compliance Demonstration		
17.3 vi)	Total PM_{10} emissions for the steam plant boilers.	Calculated emissions in each semiannual report.	**Engine**	**6-Month Reporting Period**	**Sum of Previous 12 Months**
			Steam Plant Boilers	1.47 tons	2.94 tons

8.0 REFERENCES

00-05-006, *Hanford Site Title V Air Operating Permit 00-05-006 Renewal 3,* effective August 1, 2019, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Agency, Richland, Washington.

18-ESQ-0040, 2018, "Transmittal of License/As Low As Reasonably Achievable Control Technology (ALARACT) Revision Request and Notification of Off-Permit Change, Permit Number 00-05-006, Renewal 2, for the Closure of the Plutonium Uranium Extraction (PUREX) Plant Tunnel 1 Stabilization Licensed Radioactive Air Emission Units (EU) 1471 Through 1480," external letter to J. Martell, Washington State Department of Health, K. McFadden, U.S. Environmental Protection Agency, and A. K. Smith, Washington State Department of Ecology, from D. Shoop, U.S. Department of Energy, Richland Operations Office, Richland, Washington, March 9.

19-ESQ-0086, 2019, "Transition of the Reduction-Oxidation Facility (REDOX) and Stack P-291S001-001 to Regulation under the Comprehensive Environmental Response, Compensation and Liability Act Of 1980 (CERCLA)," external letter to J. Martell, Washington State Department of Health, A. K. Smith, Washington State Department of Ecology, and K. Viswanathan, U.S. Environmental Protection Agency, from B. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, March 9.

21-ECD-001675, 2021, "Transmittal of Radioactive Air Notice of Construction Application for the Waste Encapsulation and Storage Facility, DOE/RL-2015-50, Revision 3, License/As Low As Reasonably Achievable Control Technology Revision Requests, Significant Permit Modification Request, Hanford Site Air Operating Permit, Permit Number 00-05-006," external letter to D. Bowen, Washington State Department of Ecology, J. Martell, Washington State Department of Health, and K. McFadden, U.S. Environmental Protection Agency, from B. T. Vance, U.S. Department of Energy, Richland Operations Office and Office of River Protection, Richland, Washington, June 1.

23-NWP-066, 2023, "Re: Issuance of Approval Order DE19NWP-001, Revision 1 for the L-897 Emergency Engine Flexibility Notice of Construction (NOC) Application," external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection and Richland Operations Office, from M. F. Williams, Washington State Department of Ecology, Richland, Washington, May 30.

23-NWP-073, 2023, “Re: Issuance of Approval Order DE05NWP-004, Revision 1 for updates to the Integrated Disposal Facility (IDF) Notice of Construction (NOC) Application,” external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection and Richland Operations Office, from J. B. Pulsipher, Washington State Department of Ecology, Richland, Washington, June 13.

23-ECD-000598, 2023; “Hanford Site Air Operating Permit Semiannual Report for July 1, 2022, through December 31, 2022, DOE/RL-2023-01,” external letter to D. B. Bowen, Washington State Department of Ecology, J. P. Martell, Washington State Department of Health, J. McAuley, U.S. Environmental Protection Agency, and R. Rodger, Benton Clean Air Agency, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, March 1.

23-ECD-001782, 2023, “Contract No: 89303320DEM000030 – Transmittal of the Compliance Log to Satisfy Condition 10 of Notice of Construction 1067,” external letter to J. P. Martell, Washington State Department of Health, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, May 30.

23-ECD-002160, 2023, “U.S. Department of Energy-2023-07, Revision 0, Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2022,” external letter to J. P. Martell, Washington State Department of Health, and K. Viswanathan, U.S. Environmental Protection Agency, from B. T. Vance, U.S. Department of Energy, Richland Operations Office, Richland, Washington, June 9.

AIR 17-113, 2017, "Final Approval of Notice of Construction (NOC) 1034," external letter to D. Shoop, U.S. Department of Energy, Richland Operations Office, from J. Martell, Washington State Department of Health, Olympia, Washington, January 24.

AIR 17-207, 2017, “Head Space Gas Sampling at the Waste Receiving and Processing Facility (Replaces NOC 810) (EU 1183; NOC 1076),” external letter to D. Shoop, U.S. Department of Energy, Richland Operations Office, from J. Martell, Washington State Department of Health, Olympia, Washington, February 15.

AIR 18-401, 2018, “Transition of Emission Unit (EU) 163, 296-S-18 Exhauster, to Table 2-1,” external letter to B. Vance, U.S. Department of Energy, Office of River Protection, from J. Martell, Washington State Department of Health, Richland, Washington, April 11.

AIR 19-119, 2019, “Closure of Emission Units (EUs) 1371 and 1384 for W-MARS-0003 and W-MARS-004,” external letter to B. Vance, U.S. Department of Energy, Office of River Protection, from J. Martell, Washington State Department of Health, Richland, Washington, January 29.

AIR 20-303, 2020, “296-S-23 Operation (EU 438, NOC 1570),” external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection, from J. Martell, Washington State Department of Health, Richland, Washington, March 5.

AIR 21-910, 2021, “Re: Approval of Notice of Construction (NOC) 1579,” external letter to B. T. Vance, U.S. Department of Energy, Richland Operations Office, from J. Martell, Washington State Department of Health, Richland, Washington, September 24.

AIR 23-102, “Re: Notice of Transition of the 100 Area Diffuse/Fugitive Emission Unit (EU 689),” external letter to B. T. Vance, U.S. Department of Energy, Richland Operations Office, from J. P. Martell, Washington State Department of Health, Richland, Washington, January 26.

AIR 23-306, "Re: Conditional Operating License and Conditions of Acceptance for LB-C2 Stack for the C2V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1640)," external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection, from J. P. Martell, Washington State Department of Health, Richland, Washington, March 24.

AIR 23-307, "Re: Conditional Operating License and Conditions of Acceptance for LB-S1 Stack for the C3V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1641)," external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection, from J. P. Martell, Washington State Department of Health, Richland, Washington, March 24.

AIR 23-308, "Re: Conditional Operating License and Conditions of Acceptance for LB-S2 Stack for the C5V Exhaust System of the WTP Analytical Laboratory (LAB) (Replaces Interim NOC# 1642)," external letter to B. T. Vance, U.S. Department of Energy, Office of River Protection, from J. P. Martell, Washington State Department of Health, Richland, Washington, March 24.

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