

CH2MHILL • BWXT West Valley, LLC

West Valley Demonstration Project

Ms. Bridget M. Purdy, Contracting Officer
U. S. Department of Energy
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, New York 14171-9799

AC-PRES
WD:2017:0604
June 15, 2017

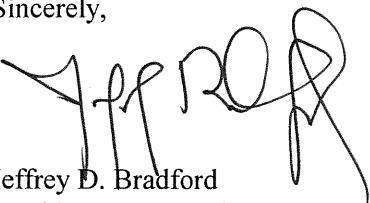
SUBJECT: Contract No. DE-EM0001529, Section J-3, Item 127, State Pollutant Discharge Elimination System (SPDES) Discharge Monitoring Report (DMR)

Dear Ms. Purdy:

This letter is submitted for Contracting Officer Representative's approval to inform you that the SPDES DMR for the reporting period May 1 through May 31, 2017 has been submitted electronically. A copy of this submittal is attached as well as a copy of the email confirmation from the New York State Department of Environmental Conservation (NYSDEC).

If you have any questions, please contact William Kean at extension 4865 or Janice Williams at extension 2913.

Sincerely,



Jeffrey D. Bradford
President & General Manager

JDB:WNK:bnj

Attachments: A) SPDES DMR for May 1 – 31, 2017
B) Email Confirmation from NYSDEC

cc: B. C. Bower, DOE-WVDP
S. A. Anderson, CHBWV
J. J. Baker, CHBWV
L. E. Bennett, CHBWV (Public Reading Room)
J. L. Casper, CHBWV
N. Feher, CHBWV
L. K. Hollfelder, CHBWV
W. N. Kean, CHBWV
C. B. Lee, CHBWV
L. J. Ortega, CHBWV
D. H. Pritchard, CHBWV
J. E. Wangelin, CHBWV
J. D. Williams, CHBWV
Letter Log (B. Jeffery), CHBWV
CHBWV OITS #1630448

Attachment A
SPDES DMR

Permit

Permittee:	U.S. DEPT OF ENERGY
Permittee Address:	1000 INDEPENDENCE AVE SW WASHINGTON, DC 20585
Discharge:	116-M PSEUDO MON. POINT @FRANKS CRK

Permitted Feature:	116 Internal Outfall
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Discharge: 116-M
PSEUDO MON. POINT @ FRANKS CRK

Monitoring Period: From 05/01/17 to 05/31/17

DMR Due Date: 06/28/17

Status: NetDMR Validated

IF PSUEDO MONITORING POINT REPORT IS NOT REQUIRED DURING THE MONITORING PERIOD, EITHER CHECK THE NO DISCHARGE BOX OR ENTER 'NODI A' IN PLACE OF A MEASUREMENT TO INDICATE A GENERAL PERMIT EXEMPTION.

First Name: Bryan C.
Last Name: Bower

Title: Director, USDOE-WVDP

Telephone: 717-942-4368

Form NODI: _____

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. DEPT OF ENERGY

User: william.keane@chbwv.com
Name: William Kean
E-Mail: william.keane@chbwv.com

Date/Time: 2017-06-14 07:23 (Time Zone: -04:00)

DMR Copy of Record

Permit

Permit #: NY0000973
Major: Yes
Permittee: U.S. DEPT OF ENERGY
Permittee Address: 1000 INDEPENDENCE AVE SW
WASHINGTON, DC 20585
Facility: WEST VALLEY DEMONSTRATION PROJ
Facility Location: 10282 ROCK SPRINGS ROAD
WEST VALLEY, NY 14171-9799
Permitted Feature: SUM
Internal Outfall
Discharge: SUM-N
SUM OF OUTFALLS 1 & 7

Report Dates & Status

Monitoring Period: From 05/01/17 to 05/31/17
DMR Due Date: 06/28/17
Status: NetDMR Validated
Considerations for Form Completion

Principal Executive Officer

First Name: Bryan C.
Last Name: Bower
Title: Director, USDOE-WWDP
Telephone: 717-942-4368

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location		Season #	Param. NODI	Quantity or Loading				Quality or Concentration				# of Ex.	Frequency of Analysis	Sample Type		
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	
01045	Iron, total [as Fe] 2 - Effluent Net	0	—		Sample Permit Req. Value NODI						Req Mon MO AVG <=				1 DAILY MX	19 - mg/L	01/30 - Monthly	CA - CALCTD
											C - No Discharge					C - No Discharge		

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

Name	Type	Size
NetIronEffluentConcentrationCalculation.pdf	pdf	28894

Report Last Saved By

U.S. DEPT OF ENERGY

User: william.kean@chbwv.com
Name: William Kean
E-Mail: william.kean@chbwv.com
Date/Time: 2017-06-14 07:23 (Time Zone: -04:00)

DMR Copy of Record

Permit

Permit #:	NY0000973	Permittee:	U.S. DEPT OF ENERGY	Facility:	WEST VALLEY DEMONSTRATION PROJ
Major:	Yes	Permittee Address:	1000 INDEPENDENCE AVE SW WASHINGTON, DC 20585	Facility Location:	10282 ROCK SPRINGS ROAD WEST VALLEY, NY 14171-9799
Permitted Feature:	001 External Outfall	Discharge:	001-M OUTFALL 001 MONTHLY PROC WW, GW, STORM		

Report Dates & Status

Monitoring Period:	From 05/01/17 to 05/31/17	DMR Due Date:	06/28/17	Status:	NetDMR Validated
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Considerations for Form Completion

Principal Executive Officer

First Name:	Bryan C.	Title:	Director, USDOE-WVDP	Telephone:	717-942-4368
Last Name:	Bower				

No Data Indicator (NODI)

Form NODI: --

Code	Parameter Name	Monitoring Location	Season	# Param. NODI	Quantity or Loading				Quality or Concentration						# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units
00154 Sulfate [as S]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	01/BA - Once Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				
00181 Oxygen demand, ultimate		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	22 DAILY MX	19 - mg/L	02/BA - Twice Per Batch	CA - CALCTD	
					Permit Req.									C - No Discharge	C - No Discharge				
00300 Oxygen, dissolved [DO]		1 - Effluent Gross	0	--	Sample					>=	3 MINIMUM			Req Mon MAXIMUM	19 - mg/L		02/BA - Twice Per Batch	GR - GRAB	
					Value NODI						C - No Discharge			C - No Discharge					
00310 BOD, 5-day, 20 deg. C		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	10 DAILY MX	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				
00400 pH		1 - Effluent Gross	0	--	Sample					>=	6.5 MINIMUM			<=	8.5 MAXIMUM	12 - SU	01/BA - Once Per Batch	GR - GRAB	
					Value NODI						C - No Discharge				C - No Discharge				
00530 Solids, total suspended		1 - Effluent Gross	0	--	Sample								<=	30 MO AVG	<=	45 DAILY MX	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24
					Permit Req.									C - No Discharge	C - No Discharge				
00545 Solids, settleable		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.3 DAILY MX	25 - mL/L	02/BA - Twice Per Batch	GR - GRAB	
					Permit Req.									C - No Discharge	C - No Discharge				
00556 Oil & Grease		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	15 DAILY MX	19 - mg/L	01/BA - Once Per Batch	GR - GRAB	
					Permit Req.									C - No Discharge	C - No Discharge				
00615 Nitrogen, nitrite total [as N]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.1 DAILY MX	19 - mg/L	01/BA - Once Per Batch	24 - COMP24	
					Value NODI									C - No Discharge	C - No Discharge				
00620 Nitrogen, nitrate total [as N]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	01/BA - Once Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				
00625 Nitrogen, Kjeldahl, total [as N]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				
00746 Sulfide, dissolved, [as S]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.4 DAILY MX	19 - mg/L	01/BA - Once Per Batch	24 - COMP24	
					Value NODI									C - No Discharge	C - No Discharge				
00978 Arsenic, total recoverable		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.15 DAILY MX	19 - mg/L	01/BA - Once Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				
00979 Cobalt, total recoverable		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.005 DAILY MX	19 - mg/L	01/BA - Once Per Batch	GR - GRAB	
					Value NODI									C - No Discharge	C - No Discharge				
00981 Selenium, total recoverable		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG <=	.004 DAILY MX	19 - mg/L	01/BA - Once Per Batch	GR - GRAB	
					Permit Req.									C - No Discharge	C - No Discharge				
01045 Iron, total [as Fe]		1 - Effluent Gross	0	--	Sample									Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24	
					Permit Req.									C - No Discharge	C - No Discharge				

01105 Aluminum, total [as Al]	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI		<=	2 MO AVG C - No Discharge	<=	4 DAILY MX C - No Discharge	19 - mg/L	01/BA - Once Per Batch	24 - COMP24
01128 Vanadium, total recoverable	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI			Req Mon MO AVG C - No Discharge	<=	.014 DAILY MX C - No Discharge	19 - mg/L	01/BA - Once Per Batch	GR - GRAB
34726 Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI		<=	1.5 MO AVG C - No Discharge	<=	2.1 DAILY MX C - No Discharge	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24
50050 Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI	Req Mon MO AVG C - No Discharge		Req Mon DAILY MX	03 - MGD C - No Discharge			02/BA - Twice Per Batch	CN - CONTIN
50060 Chlorine, total residual	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI			Req Mon MO AVG C - No Discharge	<=	.1 DAILY MX C - No Discharge	19 - mg/L	01/BA - Once Per Batch	GR - GRAB
70295 Solids, total dissolved	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI			Req Mon MO AVG C - No Discharge		Req Mon DAILY MX	19 - mg/L	02/BA - Twice Per Batch	GR - GRAB
71900 Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI		<=	50 MO AVG C - No Discharge		Req Mon DAILY MX	3M - ng/L	01/BA - Once Per Batch	GR - GRAB
81646 Surfactants [linear alkylate sulfonate]	1 - Effluent Gross	0	--	Sample Permit Req. Value NODI			Req Mon MO AVG C - No Discharge	<=	.04 DAILY MX C - No Discharge	19 - mg/L	01/BA - Once Per Batch	GR - GRAB

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. DEPT OF ENERGY

User: **william.kean@chbwv.com**

Date/Time: 2017-06-14 07:23 (Time Zone: -04:00)

Name: William Kean

E-Mail: william.kean@chbwv.com

DMR Copy of Record

Permit

Permit #: NY0000973 Permittee: U.S. DEPT OF ENERGY Facility: WEST VALLEY DEMONSTRATION PROJ
Major: Yes Permittee Address: 1000 INDEPENDENCE AVE SW Facility Location: 10282 ROCK SPRINGS ROAD
WASHINGTON, DC 20585 WEST VALLEY, NY 14171-9799
Permitted Feature: 007 Discharge: 007-M
External Outfall SANITARY, NC COOLING WATER, UTILITY WASTEWATER, STORMWATER

Report Dates & Status

Monitoring Period: From 05/01/17 to 05/31/17 DMR Due Date: 06/28/17 Status: NetDMR Validated
Considerations for Form Completion

Principal Executive Officer

First Name: Bryan C. Title: Director, USDOE-WVDP Telephone: 717-942-4368
Last Name: Bower

No Data Indicator (NODI)

Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00181	Oxygen demand, ultimate	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample					>=	3 MINIMUM								
					Permit Req.														
					Value NODI														
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00400	pH	1 - Effluent Gross	0	--	Sample					>=	6.5 MINIMUM								
					Permit Req.														
					Value NODI														
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00545	Solids, settleable	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00556	Oil & Grease	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00615	Nitrogen, nitrite total [as N]	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
34726	Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
70295	Solids, total dissolved	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample														
					Permit Req.														
					Value NODI														

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

[Edit Check Errors](#)

No errors.

[Comments](#)

[Attachments](#)

No attachments.

[Report Last Saved By](#)

U.S. DEPT OF ENERGY

User: william.kean@chbwv.com

Date/Time:

2017-06-14 07:23 (Time Zone: -04:00)

Name: William Kean

E-Mail: william.kean@chbwv.com

DMR Copy of Record

Permit

Permit #: NY0000973
 Major: Yes
 Permitted Feature: 01B
 Internal Outfall
 Permittee: U.S. DEPT OF ENERGY
 Permittee Address: 1000 INDEPENDENCE AVE SW
 WASHINGTON, DC 20585
 Facility: WEST VALLEY DEMONSTRATION PROJ
 Facility Location: 10282 ROCK SPRINGS ROAD
 WEST VALLEY, NY 14171-9799
 Discharge: 01B-M
 MERCURY PRETREATMENT

Report Dates & Status

Monitoring Period: From 05/01/17 to 05/31/17
 DMR Due Date: 06/28/17
 Status: NetDMR Validated
 Considerations for Form Completion

Principal Executive Officer

First Name: Bryan C.
 Last Name: Bower
 Title: Director, USDOE-WWDP
 Telephone: 717-942-4368

No Data Indicator (NODI)

Form NODI: --

Parameter Code	Monitoring Location	Season #	Param. NODI	Sample	Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00056 Flow rate	1 - Effluent Gross	0	--	Sample		Req Mon MO AVG		Req Mon DAILY MX 07 - gal/d										01/07 - Weekly	CN - CONTIN
				Permit Req. Value NODI		C - No Discharge		C - No Discharge											
71900 Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample															
				Permit Req. Value NODI															
						Req Mon MO AVG <=		50 DAILY MX	3M - ng/L									02/BA - Twice Per Batch	GR - GRAB
						C - No Discharge		C - No Discharge											

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. DEPT OF ENERGY

User: william.kean@chbwv.com
 Name: William Kean
 E-Mail: william.kean@chbwv.com
 Date/Time: 2017-06-14 07:23 (Time Zone: -04:00)

ATTACHMENT

SPDES DISCHARGE MONITORING REPORT - MAY 1 THROUGH MAY 31, 2017
NET IRON EFFLUENT CONCENTRATION CALCULATION
WEST VALLEY DEMONSTRATION PROJECT, SPDES PERMIT NO. NY-0000973

$$\text{OUTFALL 001} = M1 = \frac{(X1 + X2) V1}{2} = 0.00 \text{ mg/month}$$

$$X1 = 0.00 \text{ mg/L}$$

$$X2 = 0.00 \text{ mg/L}$$

$$V1 = 0.00 \text{ L/month}$$

Note: There was no discharge from outfall 001 during this monitoring period.

$$\text{OUTFALL 007} = M7 = \frac{(X1 + X2) V7}{2} = 0.00 \text{ mg/month}$$

$$X1 = 0.00 \text{ mg/L}$$

$$X2 = 0.00 \text{ mg/L}$$

$$V7 = 0.00 \text{ L/month}$$

Note: There was no discharge from outfall 007 during this monitoring period.

$$\text{RAW WATER} = MRW = \frac{(X1 + X2 + X3 + X4) VRW}{4} = 0.00 \text{ mg/month}$$

$$X1 = 0.00 \text{ mg/L}$$

$$X2 = 0.00 \text{ mg/L}$$

$$X3 = 0.00 \text{ mg/L}$$

$$X4 = 0.00 \text{ mg/L}$$

$$VRW = 0.00 \text{ L/month}$$

Note: Raw water from the reservoir system is no longer used for process water since the site installed two groundwater wells. This eliminated the need to collect raw water samples on a weekly basis and altered the iron discharge concentration equation as the mass of iron entering the system is no longer necessary.

$$\text{IRON DISCHARGE CONCENTRATION} = \frac{M1 + M7 - MRW}{V1 + V7} = 0.00 \text{ mg/L}$$