

CH2MHILL • BWXT West Valley, LLC

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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:2017:1179
November 8, 2017

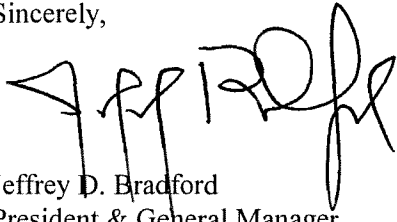
SUBJECT: Contract No. DE-EM0001529, Section J-3, Item 127, State Pollutant Discharge Elimination System (SPDES) Discharge Monitoring Report (DMR)

Dear Ms. Purdy:

This letter is submitted for Contracting Officer Representative's approval to inform you that the SPDES DMR for the reporting period October 1 through October 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 October 1 – October 31, 2017
B) Email Confirmation from NYSDEC

cc: B. C. Bower, DOE-WVDP
S. A. Anderson, CHBWV
J. J. Baker, CHBWV
J. L. Casper, CHBWV
C. Dayton, CHBWV (Public Reading Room)
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 #1630268

Attachment A
SPDES DMR

DMR Copy of Record

Permit

Permit #: NY0000973
 Major: Yes
 Permitted Feature: 001
 External Outfall

Permittee: U.S. DEPT OF ENERGY
 Permittee Address: 1000 INDEPENDENCE AVE SW
 WASHINGTON, DC 20585
 Discharge: 001-M
 OUTFALL 001 MONTHLY PROC WW, GW, STORM

Facility: WEST VALLEY DEMONSTRATION PROJ
 Facility Location: 10282 ROCK SPRINGS ROAD
 WEST VALLEY, NY 14171-9799

Report Dates & Status

Monitoring Period: From 10/01/17 to 10/31/17
 Considerations for Form Completion

DMR Due Date: 11/28/17

Status: NetDMR Validated

Principal Executive Officer

First Name: Bryan C.
 Last Name: Bower

Title: Director, USDOE-WVDP

Telephone: 716-942-4368

No Data Indicator (NDDI)

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	Qualifier 1	Value 1				Qualifier 2	Value 2
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. Value NDDI				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. Value NDDI				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		
						Permit Req. Value NDDI				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. Value NDDI				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	
						Permit Req. Value NDDI				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. Value NDDI				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. Value NDDI				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. Value NDDI				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		
						Permit Req. Value NDDI				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. Value NDDI				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. Value NDDI				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		
						Permit Req. Value NDDI				C - No Discharge	C - No Discharge					
00878	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. Value NDDI				C - No Discharge	C - No Discharge					
00879	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		
						Permit Req. Value NDDI				C - No Discharge	C - No Discharge					
00881	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. Value NDDI				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. Value NDDI				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 excess of the treatment plant	1 - Effluent Gross	0	--	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 C - No Discharge		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 - mg/L C - No Discharge		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@chbvw.com
 Name: William Kean
 E-Mail: william.kean@chbvw.com
 Date/Time: 2017-11-06 12:42 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbvw.com
 Name: Janice Williams
 E-Mail: janice.williams@chbvw.com
 Date/Time: 2017-11-06 12:45 (Time Zone: -05:00)

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 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 10/01/17 to 10/31/17 DMR Due Date: 11/28/17 Status: NetDMR Validated

Considerations for Form Completion

Principal Executive Officer

First Name: Bryan C. Title: Director, USDOE-WVDP Telephone: 716-942-4368
 Last Name: Bower

No Data Indicator (NODI)

Form NODI: -

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading				Quality or Concentration				Units	# of Ex.	Frequency of Analysis	Sample Type
					Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 1	Value 1	Qualifier 2	Value 2				
00181	Oxygen demand, ultimate	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG <=	22 DAILY MX	19 - mg/L	01/30 - Monthly	CA - CALCTD		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	-	Sample					>= 3 MINIMUM	Req Mon MAXIMUM	19 - mg/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req. 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	02/30 - Twice Per Month	24 - COMP24		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
00400	pH	1 - Effluent Gross	0	-	Sample					>= 6.5 MINIMUM	<= 8.5 MAXIMUM	12 - SU	02/30 - Twice Per Month	GR - GRAB		
					Permit Req. 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	02/30 - Twice Per Month	24 - COMP24		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
00545	Solids, settleable	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG <=	.3 DAILY MX	25 - mL/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
00556	Oil & Grease	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG <=	15 DAILY MX	19 - mg/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req. Value NODI					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	01/30 - Monthly	24 - COMP24		
					Permit Req. Value NODI					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	01/30 - Monthly	24 - COMP24		
					Permit Req. Value NODI					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	02/30 - Twice Per Month	24 - COMP24		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
34726	Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	-	Sample					<= 1.49 MO AVG	<= 2.1 DAILY MX	19 - mg/L	02/30 - Twice Per Month	24 - COMP24		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG	Req Mon DAILY MX	03 - MGD	01/30 - Monthly	CN - CONTIN		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
50060	Chlorine, total residual	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG <=	.1 DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
70295	Solids, total dissolved	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req. Value NODI					C - No Discharge	C - No Discharge					
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	-	Sample					Req Mon MO AVG <=	50 DAILY MX	3M - ng/L	01/30 - Monthly	GR - GRAB		
					Permit Req. Value NODI					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.

EdR Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. DEPT OF ENERGY

User: william.kean@chbvw.com
Name: William Kean
E-Mail: william.kean@chbvw.com
Date/Time: 2017-11-06 12:42 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbvw.com
Name: Janice Williams
E-Mail: janice.williams@chbvw.com
Date/Time: 2017-11-06 12:45 (Time Zone: -05:00)

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
 Discharge: 01B-M MERCURY PRETREATMENT

Facility: WEST VALLEY DEMONSTRATION PROJ
 Facility Location: 10282 ROCK SPRINGS ROAD WEST VALLEY, NY 14171-9799

Report Dates & Status

Monitoring Period: From 10/01/17 to 10/31/17
 DMR Due Date: 11/28/17
 Status: NetDMR Validated

Considerations for Form Completion

Principal Executive Officer

First Name: Bryan C.
 Last Name: Bower
 Title: Director, USDOE-WVDP
 Telephone: 716-942-4368

No Data Indicator (NODI)

Form NODI: --

Code	Parameter Name	Monitoring Location	Season	# Param.	NODI	Quantity or Loading			Units	Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type
						Qualifier 1	Value 1	Qualifier 2		Value 2	Qualifier 3	Value 3			
0056	Flow rate	1 - Effluent Gross	0	--	Sample	Permit Req.	Req Mon MO AVG	Req Mon DAILY MX 07 - gal/d					01/07	Weekly	CN - CONTIN
					Value NODI:	C - No Discharge	C - No Discharge	C - No Discharge							
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample	Permit Req.	Req Mon MO AVG <=	50 DAILY MX	3M - ng/L				02/BA	Twice Per Batch	GR - GRAB
					Value NODI:	C - No Discharge	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.keen@chbvw.com
 Name: William Keen
 E-Mail: william.keen@chbvw.com
 Date/Time: 2017-11-06 12:42 (Time Zone: -05:00)

Report Last Signed By

User: janica.williams@chbvw.com
 Name: Janice Williams
 E-Mail: janica.williams@chbvw.com
 Date/Time: 2017-11-06 12:45 (Time Zone: -05:00)

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 Facility Location: 10282 ROCK SPRINGS ROAD
 WEST VALLEY, NY 14171-9799
 Permitted Feature: 116 Internal Outfall Discharge: 116-M PSEUDO MON. POINT @FRANKS CRK

Report Dates & Status

Monitoring Period: From 10/01/17 to 10/31/17 DMR Due Date: 11/28/17 Status: NetDMR Validated

Considerations for Form Completion

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

Principal Executive Officer

First Name: Bryan C. Title: Director, USDOE-WVDP Telephone: 716-642-4368
 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			
70295	Solids, total dissolved Z - Instream Monitoring 0							Permit Req. Value NODI	Req Mon MG AVG <=	500 DAILY MX	18 - mg/L	02/DS - Twice Per Discharge	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

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: 2017-11-06 12:42 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbwv.com
 Name: Janice Williams
 E-Mail: janice.williams@chbwv.com
 Date/Time: 2017-11-08 12:45 (Time Zone: -05:00)

ATTACHMENT

SPDES DISCHARGE MONITORING REPORT - OCTOBER 1 THROUGH OCTOBER 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.

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