

CH2MHILL • BWXT West Valley, LLC

West Valley Demonstration Project

Ms. Angela M. Cooney, Contracting Officer
U. S. Department of Energy
250 East 5th St., Suite 500
Cincinnati, OH 45202

AC-PRES
WD:2019:0118
February 20, 2019

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

Dear Ms. Cooney:

This letter is submitted for Contracting Officer Representative's approval to inform you that the SPDES DMR for the reporting period January 1 through January 31, 2019 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,



Scott A. Anderson
President & General Manager

SAA:WNK:bnj

Attachments: A) SPDES DMR for January 1 – 31, 2019
B) Email Confirmation from NYSDEC

cc: T. Taggart, DOE-EMCBC
B. C. Bower, DOE-WVDP
C. Chun, CHBWV
L. K. Hollfelder, CHBWV
W. N. Kean, CHBWV
L. J. Ortega, CHBWV
J. T. Pillittere, CHBWV (Public Reading Room)
D. H. Pritchard, CHBWV
J. D. Rendall, CHBWV
J. E. Wangelin, CHBWV
J. D. Williams, CHBWV
Letter Log (B. Jeffery), CHBWV
CHBWV OITS #1830406

Attachment A
SPDES DMR

ATTACHMENT

SPDES DISCHARGE MONITORING REPORT - JANUARY 1 THROUGH JANUARY 31, 2019
NET IRON EFFLUENT CONCENTRATION CALCULATION
WEST VALLEY DEMONSTRATION PROJECT, SPDES PERMIT NO. NY-0000973

$$\begin{aligned} \text{OUTFALL 001} &= M1 = \frac{(X1 + X2) V1}{2} = 1382628.57 \text{ mg/month} \\ X1 &= 0.122 \text{ mg/L} \\ X2 &= 0.179 \text{ mg/L} \\ V1 &= 9186900.82 \text{ L/month} \end{aligned}$$

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

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

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

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.

$$\text{IRON DISCHARGE CONCENTRATION} = \frac{M1 + M7 - MRW}{V1 + V7} = 0.15 \text{ mg/L}$$

ATTACHMENT (Cont'd)

SPDES DISCHARGE MONITORING REPORT - JANUARY 1 THROUGH JANUARY 31, 2019
TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATION CALCULATION - MONITORING POINT 116
WEST VALLEY DEMONSTRATION PROJECT, SPDES PERMIT No. NY-0000973

Date: January 9, 2019

$$\begin{aligned} C4 &= ((Q1)(C1)+(Q2)(C2)+(Q3)(C3))/Q4 \\ &= ((0.342 \text{ MGD})(660 \text{ mg/L})+(3.070 \text{ MGD})(146 \text{ mg/L})+(0.324 \text{ MGD})(124 \text{ mg/L}))/ (3.736 \text{ MGD}) \\ &= 191 \text{ mg/L} \end{aligned}$$

Date: January 15, 2019

$$\begin{aligned} C4 &= ((Q1)(C1)+(Q2)(C2)+(Q3)(C3))/Q4 \\ &= ((0.342 \text{ MGD})(700 \text{ mg/L})+(1.984 \text{ MGD})(181 \text{ mg/L})+(0.324 \text{ MGD})(83 \text{ mg/L}))/2.650 \text{ MGD}) \\ &= 236 \text{ mg/L} \end{aligned}$$

-
- Q1 = Flow at Outfall 001, million gallons per day (MGD).
- C1 = Total Dissolved Solids (TDS) concentration at Outfall 001, mg/L.
- Q2 = Flow in Franks Creek, MGD (without Outfall 001), measured at WNSP006 just prior to, and shortly after the discharge event.
- C2 = TDS concentration in Franks Creek measured at WNSP006 just prior to, and shortly after the discharge event.
- Q3 = Flow of augmentation water, MGD, if required.
- C3 = TDS concentration in augmentation water, MGD.
- Q4 = Q1 + Q2 + Q3, MGD (Flow in Franks Creek, including Outfall 001).
- C4 <= 500 mg/L (calculated TDS concentration at 116 in Franks Creek, which includes Outfall 001).

01105	Aluminum, total [as Al]	1 - Effluent Gross	0	--	Sample													=	0.097	=	0.097	19 - mg/L	01/BA - Once Per Batch	24 - COMP24				
					Permit Req.														<=	2 MO AVG	<=	4 DAILY MX	19 - mg/L	0	01/BA - Once Per Batch	24 - COMP24		
					Value NODI																							
01128	Vanadium, total recoverable	1 - Effluent Gross	0	--	Sample														<	0.0015	<	0.0015	19 - mg/L	01/BA - Once Per Batch	GR - GRAB			
					Permit Req.															Req Mon MO AVG	<=	.014 DAILY MX	19 - mg/L	0	01/BA - Once Per Batch	GR - GRAB		
					Value NODI																							
34726	Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	--	Sample															=	0.11	=	0.17	19 - mg/L	02/BA - Twice Per Batch	24 - COMP24		
					Permit Req.															<=	1.5 MO AVG	<=	2.1 DAILY MX	19 - mg/L	0	02/BA - Twice Per Batch	24 - COMP24	
					Value NODI																							
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample	=	0.342	=	0.398	03 - MGD															02/BA - Twice Per Batch	CN - CONTIN		
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD															0	02/BA - Twice Per Batch	CN - CONTIN	
					Value NODI																							
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample															=	0.02	=	0.02	19 - mg/L	01/BA - Once Per Batch	GR - GRAB		
					Permit Req.																Req Mon MO AVG	<=	.1 DAILY MX	19 - mg/L	0	01/BA - Once Per Batch	GR - GRAB	
					Value NODI																							
70295	Solids, total dissolved	1 - Effluent Gross	0	--	Sample															=	680	=	700	19 - mg/L	02/BA - Twice Per Batch	GR - GRAB		
					Permit Req.																Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L	0	02/BA - Twice Per Batch	GR - GRAB	
					Value NODI																							
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample															=	5.9	=	5.9	3M - ng/L	01/BA - Once Per Batch	GR - GRAB		
					Permit Req.																<=	50 MO AVG		Req Mon DAILY MX	3M - ng/L	0	01/BA - Once Per Batch	GR - GRAB
					Value NODI																							
81646	Surfactants [linear alkylate sulfonate]	1 - Effluent Gross	0	--	Sample															=	0.01	=	0.01	19 - mg/L	01/BA - Once Per Batch	GR - GRAB		
					Permit Req.																Req Mon MO AVG	<=	.04 DAILY MX	19 - mg/L	0	01/BA - Once Per Batch	GR - GRAB	
					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

As required in Title 6 of the New York State Codes, Rules, and Regulations 6NYCRR, Part 750-2(e)(3), the New York Environmental Laboratory Accreditation Program (NYELAP) identification numbers for Laboratories performing analysis for the WVDP DMR's are as follows: 1) TestAmerica: NY Lab No. 10026; and 2) General Engineering Laboratory: NY Lab No. 11501. Also, NYCRR Part 750-2(e)(3) requires reporting of Method Detection Limits (MDLs) where monitoring is not performed under ELAP. To that end, the MDL for Total Residual Chlorine analysis, performed by the CHBWV wastewater treatment plant operators is 0.01 mg/L. Please note that our laboratory initially analyzed the first composite sample for dissolved sulfide within hold-time with a non-detect result of <0.050 mg/L but the associated LCS result failed low. The laboratory re-ran the sample past the 7-day hold-time again with a non-detect with compliant LCS, but low MS/MSD. The result was flagged R unreliable during the data validation process. Due to the timing of the discharge and late notification by our laboratory, the discharge had ended and therefore a follow-up sample could not be obtained.

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: 2019-02-20 10:52 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbwv.com
Name: Janice Williams
E-Mail: janice.williams@chbwv.com
Date/Time: 2019-02-20 13:56 (Time Zone: -05:00)

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: 2019-02-04 13:11 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbwv.com
Name: Janice Williams
E-Mail: janice.williams@chbwv.com
Date/Time: 2019-02-20 13:56 (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 WASHINGTON, DC 20585	Facility Location:	10282 ROCK SPRINGS ROAD WEST VALLEY, NY 14171-9799
Permitted Feature:	01B Internal Outfall	Discharge:	01B-M MERCURY PRETREATMENT		

Report Dates & Status

Monitoring Period:	From 01/01/19 to 01/31/19	DMR Due Date:	02/28/19	Status:	NetDMR Validated
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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						# 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
00056	Flow rate	1 - Effluent Gross	0	--	Sample													01/07 - Weekly	CN - CONTIN
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	07 - gal/d									
					Value NODI		C - No Discharge		C - No Discharge										
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample												02/BA - Twice Per Batch	GR - GRAB	
					Permit Req.				Req Mon MO AVG <=	50 DAILY MX	3M - ng/L								
					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.

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: 2019-02-04 13:11 (Time Zone: -05:00)

Report Last Signed By

User: janice.williams@chbvw.com
 Name: Janice Williams
 E-Mail: janice.williams@chbvw.com
 Date/Time: 2019-02-20 13:56 (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 WASHINGTON, DC 20585	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 01/01/19 to 01/31/19	DMR Due Date:	02/28/19	Status:	NetDMR Validated
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Considerations for Form Completion

IF PSUEDO MONITORING POINT REPORT IS NOT REQUIRED DURING THE MONITORING PERIOD, EITHER CHECK THENO DISCHARGE BOX OR ENTER 'NODI A'IN PLACE OF A MEASUREMENT TO INDICATE A GENERAL PERMIT EXEMPTION.

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						# 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
					Sample							=	214	=	236	19 - mg/L		02/DS - Twice Per Discharge	CA - CALCTD
70295	Solids, total dissolved	Z - Instream Monitoring	0	--	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

As required in Title 6 of the New York State Codes, Rules, and Regulations 6NYCRR, Part 750-2(e)(3), the New York Environmental Laboratory Accreditation Program (NYELAP) identification numbers for Laboratories performing analysis for the WVDP DMR's are as follows: 1) TestAmerica: NY Lab No. 10026; and 2) General Engineering Laboratory: NY Lab No. 11501. Also, NYCRR Part 750-2(e)(3) requires reporting of Method Detection Limits (MDLs) where monitoring is not performed under ELAP. To that end, the MDL for Total Residual Chlorine analysis, performed by the CHBWW wastewater treatment plant operators is 0.01 mg/L.

Attachments

Name	Type	Size
WVDP_January_2019_TDS_Calculation.pdf	pdf	31399

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:	2019-02-04 13:21 (Time Zone: -05:00)

Report Last Signed By

User:	janice.williams@chbwv.com
Name:	Janice Williams
E-Mail:	janice.williams@chbwv.com
Date/Time:	2019-02-20 13:56 (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 WASHINGTON, DC 20585	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 01/01/19 to 01/31/19	DMR Due Date:	02/28/19	Status:	NetDMR Validated
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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: --

Parameter Code	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
01045	Iron, total [as Fe] 2 - Effluent Net	0	--									=	0.15	=	0.15	19 - mg/L		01/30 - Monthly	CA - CALCTD

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

As required in Title 6 of the New York State Codes, Rules, and Regulations 6NYCRR, Part 750-2(e)(3), the New York Environmental Laboratory Accreditation Program (NYELAP) identification numbers for Laboratories performing analysis for the WVDP DMR's are as follows: 1) TestAmerica: NY Lab No. 10026; and 2) General Engineering Laboratory: NY Lab No. 11501. Also, NYCRR Part 750-2(e)(3) requires reporting of Method Detection Limits (MDLs) where monitoring is not performed under ELAP. To that end, the MDL for Total Residual Chlorine analysis, performed by the CHBWV wastewater treatment plant operators is 0.01 mg/L.

Attachments

Name	Type	Size
WVDP-2019_Net_Iron_Calculation.pdf	pdf	30490

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:	2019-02-04 13:22 (Time Zone: -05:00)

Report Last Signed By

User:	janice.williams@chbwv.com
Name:	Janice Williams
E-Mail:	janice.williams@chbwv.com
Date/Time:	2019-02-20 13:56 (Time Zone: -05:00)

Attachment B
Email Confirmation from NYSDEC

Bonnie Jeffery

From: netdmr-notification@epa.gov
Sent: Wednesday, February 20, 2019 2:32 PM
To: ewwohlers@cattco.org; Moira Maloney; R9.NetDMR@dec.ny.gov; William Kean; Bonnie Jeffery; Amanda Steiner; Michael Pendl; jennifer.dundas@wv.doe.gov; Janice Williams; Joseph Forti
Subject: NetDMR DMR(s) Submittal Passed for: NY0000973

The following signed 5 DMR(s) were submitted to EPA and were successfully processed:

CDX Transaction ID: _e5a452da-0c7c-4b80-bda6-13f87cf68e2a

User ID: janice.williams@chbwv.com

Timestamp: 02/20/2019 13:56:38

Permitted Facility Name: WEST VALLEY DEMONSTRATION PROJ Permit ID: NY0000973 Permitted Feature: 001
Discharge: M - OUTFALL 001 MONTHLY PROC WW, GW, STORM Monitoring Period End Date: 01/31/19

Permitted Facility Name: WEST VALLEY DEMONSTRATION PROJ Permit ID: NY0000973 Permitted Feature: 007
Discharge: M - SANITARY, NC COOLING WATER, UTILITY WASTEWATER, STORMWATER Monitoring Period End Date: 01/31/19

Permitted Facility Name: WEST VALLEY DEMONSTRATION PROJ Permit ID: NY0000973 Permitted Feature: 01B
Discharge: M - MERCURY PRETREATMENT
Monitoring Period End Date: 01/31/19

Permitted Facility Name: WEST VALLEY DEMONSTRATION PROJ Permit ID: NY0000973 Permitted Feature: 116
Discharge: M - PSEUDO MON. POINT @FRANKS CRK Monitoring Period End Date: 01/31/19

Permitted Facility Name: WEST VALLEY DEMONSTRATION PROJ Permit ID: NY0000973 Permitted Feature: SUM
Discharge: N - SUM OF OUTFALLS 1 & 7
Monitoring Period End Date: 01/31/19

Thank you.

This is a submission from the LIVE (Production) site.