

# CH2MHILL • BWXT West Valley, LLC

*West Valley Demonstration Project*

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

AC-PRES  
WD:2018:0457  
May 9, 2018

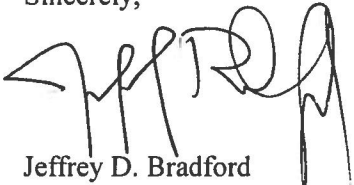
**SUBJECT:** Contract No. DE-EM0001529, Section J-3, Item 127, State Pollutant Discharge Elimination System (SPDES) Discharge Monitoring Report (DMR)

Dear Ms. Cooney:

This letter is submitted for Contracting Officer Representative's approval to inform you that the SPDES DMR for the reporting period April 1 through April 30, 2018 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 April 1 – April 30, 2018  
B) Email Confirmation from NYSDEC

**cc:** T. Taggart, DOE-EMCBC  
B. C. Bower, DOE-WVDP  
S. A. Anderson, CHBWV  
J. L. Casper, 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. E. Wangelin, CHBWV  
J. D. Williams, CHBWV  
Letter Log (B. Jeffery), CHBWV  
CHBWV OITS #1730463

**Attachment A**  
**SPDES DMR**

DMR Copy of Record

<b>Permit</b>					
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		

<b>Report Dates &amp; Status</b>					
Monitoring Period:	From 04/01/18 to 04/30/18	DMR Due Date:	05/28/18	Status:	NetDMR Validated

**Considerations for Form Completion**

<b>Principal Executive Officer</b>					
First Name:	Bryan C.	Title:	Director, USDOE-WVDP	Telephone:	716-942-4368
Last Name:	Bower				

<b>No Data Indicator (NODI)</b>					
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			
					Value NODI																	
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			
					Value NODI																	
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.													C - No Discharge	C - No Discharge			
					Value NODI																	
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			
					Value NODI																	
00400	pH	1 - Effluent Gross	0	--	Sample						>=	6.5 MINIMUM							<= 8.5 MAXIMUM	12 - SU	01/BA - Once Per Batch	GR - GRAB
					Permit Req.													C - No Discharge	C - No Discharge			
					Value NODI																	
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			
					Value NODI																	
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			
					Value NODI																	
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			
					Value NODI																	
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.													C - No Discharge	C - No Discharge			
					Value NODI																	
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			
					Value NODI																	
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			
					Value NODI																	
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.													C - No Discharge	C - No Discharge			
					Value NODI																	
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			
					Value NODI																	
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
					Permit Req.													C - No Discharge	C - No Discharge			
					Value NODI																	
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			
					Value NODI																	
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			
					Value NODI																	



**DMR Copy of Record**

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

<b>Report Dates &amp; Status</b>			
<b>Monitoring Period:</b>	From 04/01/18 to 04/30/18	<b>DMR Due Date:</b>	05/28/18
		<b>Status:</b>	NetDMR Validated
<b>Considerations for Form Completion</b>			

<b>Principal Executive Officer</b>			
<b>First Name:</b>	Bryan C.	<b>Title:</b>	Director, USDOE-WVDP
<b>Last Name:</b>	Bower	<b>Telephone:</b>	716-942-4368

<b>No Data Indicator (NODI)</b>	--
<b>Form NODI:</b>	--

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
00181	Oxygen demand, ultimate	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	CA - CALCTD
					Permit Req. Value NODI														
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	GR - GRAB
					Permit Req. Value NODI						>=	3 MINIMUM							
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	24 - COMP24
					Permit Req. Value NODI														
00400	pH	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	GR - GRAB
					Permit Req. Value NODI								>=	6.5 MINIMUM					
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	24 - COMP24
					Permit Req. Value NODI														
00545	Solids, settleable	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	GR - GRAB
					Permit Req. Value NODI														
00556	Oil & Grease	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	GR - GRAB
					Permit Req. Value NODI														
00615	Nitrogen, nitrite total [as N]	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	24 - COMP24
					Permit Req. Value NODI														
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	24 - COMP24
					Permit Req. Value NODI														
01045	Iron, total [as Fe]	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	24 - COMP24
					Permit Req. Value NODI														
34726	Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	24 - COMP24
					Permit Req. Value NODI														
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	CN - CONTIN
					Permit Req. Value NODI														
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	GR - GRAB
					Permit Req. Value NODI														
70295	Solids, total dissolved	1 - Effluent Gross	0	--	Sample													02/30 - Twice Per Month	GR - GRAB
					Permit Req. Value NODI														
71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Sample													01/30 - Monthly	GR - GRAB
					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  
Name: William Kean  
E-Mail: william.kean@chbwv.com  
Date/Time: 2018-05-07 08:34 (Time Zone: -04:00)

**Report Last Signed By**

User: janice.williams@chbwv.com  
Name: Janice Williams  
E-Mail: janice.williams@chbwv.com  
Date/Time: 2018-05-07 09:53 (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:	01B Internal Outfall	Discharge:	01B-M MERCURY PRETREATMENT		

### Report Dates & Status

Monitoring Period:	From 04/01/18 to 04/30/18	DMR Due Date:	05/28/18	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																
					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													
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							

### 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@chbvv.com  
 Name: William Kean  
 E-Mail: william.kean@chbvv.com  
 Date/Time: 2018-05-07 08:34 (Time Zone: -04:00)

### Report Last Signed By

User: janice.williams@chbvv.com  
 Name: Janice Williams  
 E-Mail: janice.williams@chbvv.com  
 Date/Time: 2018-05-07 09:53 (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:	116 Internal Outfall	Discharge:	116-M PSEUDO MON. POINT @FRANKS CRK														
Report Dates & Status																	
Monitoring Period:	From 04/01/18 to 04/30/18		DMR Due Date:	05/28/18				Status:	NetDMR Validated								
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:	--																
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		
70295	Solids, total dissolved	Z - Instream Monitoring	0	--													
				Sample													
				Permit Req.									Req Mon MO AVG <=	500 DAILY MX	19 - mg/L		02/DS - Twice Per Discharge
				Value NODI									C - No Discharge	C - No Discharge			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																	
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:	2018-05-07 08:34 (Time Zone: -04:00)																
Report Last Signed By																	
User:	janice.williams@chbwv.com																
Name:	Janice Williams																
E-Mail:	janice.williams@chbwv.com																
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## 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 04/01/18 to 04/30/18				DMR Due Date:	05/28/18				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:	--																	
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.									Req Mon MO AVG <=	1 DAILY MX	19 - mg/L		01/30 - Monthly	CA - CALCTD
				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@chbwv.com																	
Name:	William Kean																	
E-Mail:	william.kean@chbwv.com																	
Date/Time:	2018-05-07 08:34 (Time Zone: -04:00)																	
Report Last Signed By																		
User:	janice.williams@chbwv.com																	
Name:	Janice Williams																	
E-Mail:	janice.williams@chbwv.com																	
Date/Time:	2018-05-07 09:53 (Time Zone: -04:00)																	

ATTACHMENT

**SPDES DISCHARGE MONITORING REPORT - APRIL 1 THROUGH APRIL 30, 2018  
NET IRON EFFLUENT CONCENTRATION CALCULATION  
WEST VALLEY DEMONSTRATION PROJECT, SPDES PERMIT NO. NY-0000973**

$$\begin{aligned} \text{OUTFALL 001} &= M1 = \frac{(X1 + X2) V1}{2} = 0 \text{ mg/month} \\ X1 &= 0.00 \text{ mg/L} \\ X2 &= 0.00 \text{ mg/L} \\ V1 &= 0.00 \text{ L/month} \end{aligned}$$

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

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

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

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

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.

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