

Prepared for

**Dynegy Midwest Generation, LLC**

Document type

**2019 Annual Groundwater Monitoring and Corrective Action Report**

Date

**January 31, 2020**

# **2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**


## **HENNEPIN ASH POND NO. 2, HENNEPIN POWER STATION**

**2019 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT  
HENNEPIN ASH POND NO. 2, HENNEPIN POWER STATION**

Project name **Hennepin Power Station**  
Project no. **72756**  
Recipient **Dynegy Midwest Generation, LLC**  
Document type **Annual Groundwater Monitoring and Corrective Action Report**  
Version **FINAL**  
Date **January 31, 2020**  
Prepared by **Kristen L. Theesfeld**  
Checked by **Staci L. Goetz**  
Approved by **Eric J. Tlachac**  
Description **Annual Report in Support of the CCR Rule Groundwater Monitoring Program**

Ramboll  
234 W. Florida Street  
Fifth Floor  
Milwaukee, WI 53204  
USA

T 414-837-3607  
F 414-837-3608  
<https://ramboll.com>

---

**Kristen L. Theesfeld**  
Hydrogeologist

---

**Staci L. Goetz**  
Managing Geologist

## CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>1. Introduction</b>	<b>4</b>
<b>2. Monitoring and Corrective Action Program Status</b>	<b>5</b>
<b>3. Key Actions Completed in 2019</b>	<b>6</b>
<b>4. Problems Encountered and Actions to Resolve the Problems</b>	<b>8</b>
<b>5. Key Activities Planned for 2020</b>	<b>9</b>
<b>6. References</b>	<b>10</b>

## TABLES

Table A	2018-2019 Assessment Monitoring Program Summary (in text)
Table 1	2019 Analytical Results - Groundwater Elevation and Appendix III Parameters
Table 2	2019 Analytical Results - Appendix IV Parameters
Table 3	Statistical Background Values
Table 4	Groundwater Protection Standards

## FIGURES

Figure 1	Monitoring Well Location Map
----------	------------------------------

## APPENDICES

Appendix A	Corrective Measures Assessment Extension Demonstration
------------	--

## ACRONYMS AND ABBREVIATIONS

AP2	Ash Pond No. 2
CCR	Coal Combustion Residuals
CMA	Corrective Measures Assessment
GWPS	Groundwater Protection Standard
SAP	Sampling and Analysis Plan
SSL	Statistically Significant Level

Hennepin

## EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.90(e) for the Hennepin Ash Pond No. 2 (AP2) located at Hennepin Power Station near Hennepin, Illinois.

Groundwater is being monitored at Hennepin AP2 in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95.

No changes were made to the monitoring system in 2019 (no wells were installed or decommissioned). Existing monitoring wells 5, 5D, 18S, 18D, 19S, and 19D were used to delineate the extent of impacts for the Corrective Measures Assessment (CMA).

The following Statistically Significant Levels (SSLs) of 40 C.F.R. Part 257 Appendix IV parameters were determined during one or more sampling events in 2019:

- Lithium at well 18S
- Molybdenum at wells 03R and 18S

As required by 40 C.F.R. § 257.95(g)(3)(i), a CMA (OBG, 2019) in accordance with 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019, and remedy selection is in progress.

A public meeting to discuss the results of the CMA was held in December 2019.

## 1. INTRODUCTION

This report has been prepared by Ramboll on behalf of Dynegy Midwest Generation, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the Hennepin Ash Pond No. 2 (AP2) located at Hennepin Power Station near Hennepin, Illinois.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a Coal Combustion Residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and projects key activities for the upcoming year. At a minimum, the Annual Report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs.
4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring in addition to identifying the constituent(s) detected at a Statistically Significant Increase relative to background levels).
5. Other information required to be included in the Annual Report as specified in §§ 257.90 through 257.98.

This report provides the required information for the Hennepin AP2 for calendar year 2019.

## **2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS**

SSLs were determined for Hennepin AP2 and alternate source evaluations were inconclusive. In accordance with 40 C.F.R. § 257.95(g)(5), a CMA meeting the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019. Remedy selection is in progress. Hennepin AP2 remains in the Assessment Monitoring Program in accordance with 40 C.F.R. § 257.96(b).

Hennepin

### 3. KEY ACTIONS COMPLETED IN 2019

The Assessment Monitoring Program is summarized in Table A. The groundwater monitoring system, including the CCR unit and all background and downgradient monitoring wells, is presented in Figure 1. In general, one groundwater sample was collected from each background and downgradient well during each monitoring event. Groundwater elevations from existing Illinois Environmental Protection Agency (IEPA) monitoring wells 5 and 5D, located downgradient of Hennepin AP2, and IEPA monitoring wells 19S and 19D, located sidegradient of Hennepin AP2, were utilized for vertical gradient calculations to delineate the extent of impacts. All samples were collected and analyzed in accordance with the Sampling and Analysis Plan (SAP) (NRT/OBG, 2017a). All monitoring data obtained under 40 C.F.R. §§ 257.90 through 257.98 (as applicable) in 2019 are presented in Tables 1 and 2. Analytical data were evaluated in accordance with the Statistical Analysis Plan (SAP) (NRT/OBG, 2017b) to determine any SSLs of Appendix IV parameters over Groundwater Protection Standards (GWPSs). Notifications were completed in accordance with 40 C.F.R. § 257.95(g).

Statistical background values are provided in Table 3 and GWPSs in Table 4.

Analytical results for the June and September 2018 sampling events were provided in the 2018 Annual Groundwater Monitoring and Corrective Action Report.

Alternate source evaluations were inconclusive for one or more of the SSLs. Consequently, and in accordance with 40 C.F.R. § 257.95(g)(5), a CMA meeting the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and the required notification completed. The CMA (OBG, 2019) was completed on September 5, 2019 and posted to the publicly accessible website, as required by 40 C.F.R. § 257.107(h)(8). The demonstration justifying the need for a 60-day extension to the 90-day completion deadline for the CMA required by 40 C.F.R. § 257.96(a) is provided in Appendix A.

A public meeting was held on December 17, 2019 at the St. Margaret's Hospital Presentation Room in Spring Valley, Illinois to discuss the results of the of the CMA in accordance with 40 C.F.R. § 257.96(e).



**Table A – 2018-2019 Assessment Monitoring Program Summary**

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	SSL(s)	SSL(s) Determination Date	CMA Initiated
June 14, 2018	July 16, 2018	Appendix III Appendix IV	NA	NA	NA
September 13, 2018	October 10, 2018	Appendix III Appendix IV Detected <sup>1</sup>	Lithium (18S) Molybdenum (03R, 18S)	January 7, 2019	May 8, 2019
March 13-14, 2019	April 15, 2019	Appendix III Appendix IV	Lithium (18S) Molybdenum (03R, 18S)	July 15, 2019	NA
September 17-18, 2019	October 15, 2019	Appendix III Appendix IV Detected <sup>1</sup>	TBD	TBD	NA

**Notes:**

NA: Not Applicable

TBD: To Be Determined

1. Groundwater sample analysis was limited to Appendix IV parameters detected in previous events in accordance with 40 C.F.R. § 257.95(d)(1).

#### **4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS**

No problems were encountered with the Groundwater Monitoring Program during 2019. Groundwater samples were collected and analyzed in accordance with the SAP (NRT/OBG, 2017a), and all data were accepted.

Hennepin

## 5. KEY ACTIVITIES PLANNED FOR 2020

The following key activities are planned for 2020:

- Continuation of the Assessment Monitoring Program with semi-annual sampling scheduled for the first and third quarters of 2020.
- Remedy selection will continue; semiannual progress reports required by 40 C.F.R. § 257.97(a) will be completed and posted to the publicly accessible website as required by 40 C.F.R. § 257.107(h)(9).

Hennepin

## 6. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017a. Sampling and Analysis Plan, Hennepin Ash Pond No. 2, Hennepin Power Station, Hennepin, Illinois, Project No. 2285, Revision 0, October 17, 2017.

Natural Resource Technology, an OBG Company (NRT/OBG), 2017b. Statistical Analysis Plan, Baldwin Energy Complex, Havana Power Station, Hennepin Power Station, Wood River Power Station, Dynegy Midwest Generation, LLC, October 17, 2017.

OBG, Part of Ramboll, 2019. Corrective Measures Assessment, Hennepin Ash Pond No. 2 (AP2), Hennepin Power Station, Hennepin, Illinois, Dynegy Midwest Generation, LLC, September 5, 2019.

Hennepin

**TABLES**

Hennepin

**TABLE 1.**  
**2019 ANALYTICAL RESULTS - GROUNDWATER ELEVATION AND APPENDIX III PARAMETERS**  
**2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**  
HENNEPIN POWER STATION  
UNIT ID 802 - HENNEPIN ASH POND NO. 2  
HENNEPIN, ILLINOIS  
ASSESSMENT MONITORING PROGRAM

Well Identification Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date & Time Sampled	Depth to Groundwater (ft) <sup>1</sup>	Groundwater Elevation (ft NAVD88)	40 C.F.R. Part 257 Appendix III						
						Boron, total (mg/L)	Calcium, total (mg/L)	Chloride, total (mg/L)	Fluoride, total (mg/L)	pH (field) (S.U.)	Sulfate, total (mg/L)	Total Dissolved Solids (mg/L)
						6020A <sup>2</sup>	6020A <sup>2</sup>	9251 <sup>2</sup>	9214 <sup>2</sup>	SM 4500 H+B <sup>2</sup>	9036 <sup>2</sup>	SM 2540C <sup>2</sup>
Background / Upgradient Monitoring Wells												
07	41.297944	-89.305756	3/14/2019 13:05	65.50	452.77	0.0869	140	44	<0.10	6.9	59	590
			9/18/2019 8:48	64.60	453.67	0.0797	147	33	0.11	6.3	55	666
08	41.300653	-89.304486	3/14/2019 11:53	51.59	449.79	0.172	239	272	<0.10	6.8	193	1370
			9/18/2019 9:42	50.82	450.56	0.151	242	220	<0.10	6.6	195	1360
08D	41.300797	-89.304532	3/14/2019 11:31	51.89	449.45	0.170	184	246	0.12	6.8	143	1220
			9/18/2019 9:15	50.90	450.44	0.117	187	226	0.12	6.7	121	1230
Downgradient Monitoring Wells												
03R	41.304578	-89.308691	3/13/2019 13:36	32.57	449.35	1.47	96.5	80	0.29	7.3	94	574
			9/17/2019 18:31	32.20	449.72	1.50	92	59	0.34	7.1	77	540
18D	41.304923	-89.307102	3/13/2019 14:04	38.19	449.41	2.01	104	75	0.15	7.3	102	578
			9/17/2019 18:06	38.15	449.45	1.87	99.6	70	0.19	7.1	97	576
18S	41.304921	-89.307109	3/13/2019 14:31	38.25	449.45	3.60	117	74	0.16	7.4	149	614
			9/17/2019 17:48	37.95	449.75	7.12	127	55	0.16	7.3	204	688
45S	41.303751	-89.310195	3/14/2019 9:54	17.97	449.51	0.458	100	85	0.32	7.1	70	548
			9/17/2019 19:07	17.70	449.78	0.453	96.3	61	0.34	7.0	52	526
Delineation Wells <sup>3</sup>												
05R	41.305163	-89.305447	3/13/2019 15:08	38.96	449.47	NA	NA	NA	NA	NA	NA	NA
			9/17/2019 17:18	38.53	449.90	NA	NA	NA	NA	NA	NA	NA
05DR	41.305161	-89.305469	3/13/2019 14:53	38.95	449.42	NA	NA	NA	NA	NA	NA	NA
			9/17/2019 17:31	38.52	449.85	NA	NA	NA	NA	NA	NA	NA
19D	41.305451	-89.303202	3/13/2019 16:06	37.90	449.29	NA	NA	NA	NA	NA	NA	NA
			9/17/2019 16:30	37.42	449.77	NA	NA	NA	NA	NA	NA	NA
19S	41.305448	-89.303209	3/13/2019 16:21	37.92	449.34	NA	NA	NA	NA	NA	NA	NA
			9/17/2019 16:15	37.50	449.76	NA	NA	NA	NA	NA	NA	NA

[O: RAB 12/23/19, C: KLT 12/24/19, U: RAB 1/28/2020]

**Notes:**

40 C.F.R. = Title 40 of the Code of Federal Regulations

ft = foot/feet

mg/L = milligrams per liter

NA = Not Analyzed

NAVD88 = North American Vertical Datum of 1988

S.U. = Standard Units

< = concentration is less than the concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since not utilized in statistics to determine Statistically Significant Increases (SSIs) over background.

<sup>1</sup>All depths to groundwater were measured on the first day of the sampling event.

<sup>2</sup>4-digit numbers represent SW-846 analytical methods.

<sup>3</sup>Only the depths to groundwater were measured for delineation wells as the Illinois Environmental Protection Agency (IEPA) does not monitor complete sets of total and dissolved Appendix III and IV parameters.

TABLE 2.  
2019 ANALYTICAL RESULTS - APPENDIX IV PARAMETERS  
2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT  
HENNEPIN POWER STATION  
UNIT ID 802 - HENNEPIN ASH POND NO. 2  
HENNEPIN, ILLINOIS  
ASSESSMENT MONITORING PROGRAM

Well Identification Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date & Time Sampled	40 C.F.R. Part 257 Appendix IV														
				Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226/228, Combined (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
				6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>	7470A <sup>1</sup>	6020A <sup>1</sup>	903/904 <sup>1</sup>	6020A <sup>1</sup>	6020A <sup>1</sup>
Background / Upgradient Monitoring Wells																		
07	41.297944	-89.305756	3/14/2019 13:05	<0.0010	0.0016	0.109	<0.0010	<0.0010	<0.0015	<0.0010	<0.10	<0.0010	0.0094	<0.00020	<0.0015	0.59	<0.0010	<0.0020
			9/18/2019 8:48 <sup>2</sup>	NA	<0.0010	0.114	NA	<0.0010	NA	<0.0010	0.11	<0.0010	0.0088	NA	<0.0015	0.85	<0.0010	NA
08	41.300653	-89.304486	3/14/2019 11:53	<0.0010	0.0012	0.105	<0.0010	<0.0010	<0.0015	0.0319	<0.10	<0.0010	0.0158	<0.00020	0.0017	0.66	<0.0010	<0.0020
			9/18/2019 9:42 <sup>2</sup>	NA	<0.0010	0.0943	NA	<0.0010	NA	0.0099	<0.10	<0.0010	0.0123	NA	<0.0015	1.39	<0.0010	NA
08D	41.300797	-89.304532	3/14/2019 11:31	<0.0010	0.0012	0.145	<0.0010	0.0023	<0.0015	0.0157	0.12	0.0016	0.0199	<0.00020	0.0015	0.48	<0.0010	<0.0020
			9/18/2019 9:15 <sup>2</sup>	NA	<0.0010	0.143	NA	<0.0010	NA	0.0057	0.12	<0.0010	0.0142	NA	0.0016	0.42	<0.0010	NA
Downgradient Monitoring Wells																		
03R	41.304578	-89.308691	3/13/2019 13:36	<0.0010	<0.0010	0.0696	<0.0010	<0.0010	<0.0015	<0.0010	0.29	<0.0010	0.0349	<0.00020	0.185	0.18	0.0051	<0.0020
			9/17/2019 18:31 <sup>2</sup>	NA	<0.0010	0.0601	NA	<0.0010	NA	<0.0010	0.34	<0.0010	0.0230	NA	0.140	0.23	0.0035	NA
18D	41.304923	-89.307102	3/13/2019 14:04	<0.0010	<0.0010	0.0803	<0.0010	<0.0010	<0.0015	0.0043	0.15	<0.0010	0.0309	<0.00020	0.0332	0.11	<0.0010	<0.0020
			9/17/2019 18:06 <sup>2</sup>	NA	<0.0010	0.0769	NA	<0.0010	NA	0.0044	0.19	<0.0010	0.0296	NA	0.0345	0.17	<0.0010	NA
18S	41.304921	-89.307109	3/13/2019 14:31	<0.0010	0.0011	0.0643	<0.0010	<0.0010	<0.0015	<0.0010	0.16	<0.0010	0.0675	<0.00020	0.220	0.24	0.0383	<0.0020
			9/17/2019 17:48 <sup>2</sup>	NA	<0.0010	0.0453	NA	<0.0010	NA	<0.0010	0.16	<0.0010	0.101	NA	0.276	0.41	0.0528	NA
45S	41.303751	-89.310195	3/14/2019 9:54	<0.0010	<0.0010	0.0812	<0.0010	<0.0010	<0.0015	0.0032	0.32	<0.0010	0.0223	<0.00020	0.0741	0.66	<0.0010	<0.0020
			9/17/2019 19:07 <sup>2</sup>	NA	<0.0010	0.0713	NA	<0.0010	NA	<0.0010	0.34	<0.0010	0.0144	NA	0.0651	0.36	<0.0010	NA
Delineation Wells <sup>3</sup>																		
05R	41.305163	-89.305447	3/13/2019 15:08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			9/17/2019 17:18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
05DR	41.305161	-89.305469	3/13/2019 14:53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
			9/17/2019 17:31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19D	41.305451	-89.303202	3/13/2019 16:06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
			9/17/2019 16:30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
19S	41.305448	-89.303209	3/13/2019 16:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
			9/17/2019 16:15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

[O: RAB 12/23/19, C: KLT 12/24/19, U: RAB 1/28/2020, C:]

**Notes:**  
40 C.F.R. = Title 40 of the Code of Federal Regulations  
mg/L = milligrams per liter  
NA = Not Analyzed  
pCi/L = picoCuries per liter  
< = concentration is less than concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since not utilized in statistics to determine Statistically Significant Levels (SSLs) over Groundwater Protection Standards.  
<sup>1</sup>4-digit numbers represent SW-846 analytical methods and 3-digit numbers represent Clean Water Act analytical methods.  
<sup>2</sup>Only the parameters detected during the previous sampling events were analyzed during this sampling event, in accordance with 40 C.F.R. § 257.95(d)(1).  
<sup>3</sup>Only the depths to groundwater were measured for delineation wells as the Illinois Environmental Protection Agency (IEPA) does not monitor complete sets of total and dissolved Appendix III and IV parameters.

**TABLE 3.**  
**STATISTICAL BACKGROUND VALUES**  
**2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**  
HENNEPIN POWER STATION  
UNIT ID 802 - HENNEPIN ASH POND NO. 2  
HENNEPIN, ILLINOIS  
ASSESSMENT MONITORING PROGRAM

Parameter	Statistical Background Value (UPL)
<b>40 C.F.R. Part 257 Appendix III</b>	
Boron (mg/L)	0.15
Calcium (mg/L)	274
Chloride (mg/L)	384
Fluoride (mg/L)	0.12
pH (S.U.)	6.6 / 7.5
Sulfate (mg/L)	196
Total Dissolved Solids (mg/L)	1493

[O: RAB 12/23/19, C: KLT 12/24/19]

**Notes:**

40 C.F.R. = Title 40 of the Code of Federal Regulations

mg/L = milligrams per liter

S.U. = Standard Units

UPL = Upper Prediction Limit

Hennepin



**TABLE 4.**  
**GROUNDWATER PROTECTION STANDARDS**  
**2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT**  
HENNEPIN POWER STATION  
UNIT ID 802 - HENNEPIN ASH POND NO. 2  
HENNEPIN, ILLINOIS  
ASSESSMENT MONITORING PROGRAM

Parameter	Groundwater Protection Standard <sup>1</sup>
<b>40 C.F.R. Part 257 Appendix IV</b>	
Antimony (mg/L)	0.006
Arsenic (mg/L)	0.010
Barium (mg/L)	2
Beryllium (mg/L)	0.004
Cadmium (mg/L)	0.005
Chromium (mg/L)	0.10
Cobalt (mg/L)	0.039
Fluoride (mg/L)	4
Lead (mg/L)	0.015
Lithium (mg/L)	0.040
Mercury (mg/L)	0.002
Molybdenum (mg/L)	0.10
Radium 226+228 (pCi/L)	5
Selenium (mg/L)	0.05
Thallium (mg/L)	0.002

[O: RAB 12/23/19, C: KLT 12/24/19]

**Notes:**

40 C.F.R. = Title 40 of the Code of Federal Regulations

mg/L = milligrams per liter

pCi/L = picoCuries per liter

<sup>1</sup>Groundwater Protection Standard is the higher of the Maximum Contaminant Level / Health-Based Level or background.

## FIGURES

Hennepin





- CCR DELINEATION MONITORING WELL LOCATION
- UPGRADIENT MONITORING WELL LOCATION
- DOWNGRADIENT MONITORING WELL LOCATION
- CCR MONITORED UNIT

0 175 350 Feet

## MONITORING WELL LOCATION MAP HENNEPIN ASH POND NO. 2 UNIT ID:802

2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT  
VISTRA CCR RULE GROUNDWATER MONITORING  
HENNEPIN POWER STATION  
HENNEPIN, ILLINOIS

FIGURE 1

O'BRIEN & GERE ENGINEERS, INC.  
A RAMBOLL COMPANY

RAMBOLL



**APPENDIX A**  
**CORRECTIVE MEASURES ASSESSMENT EXTENSION DEMONSTRATION**

Hennepin

July 8, 2019

**Brian Voelker**

Vistra Energy  
133 South 4th Street  
Suite 306  
Springfield, IL 62701

RE: Justification for Extension to Complete Corrective Measures Assessment Under 40 C.F.R. § 257.96  
Hennepin Power Station Ash Pond No. 2 – CCR Unit ID 802

Dear **Brian**,

O'Brien & Gere Engineers, Inc., a Ramboll Company, (OBG, Part of Ramboll) is providing Dynegy Midwest Generation, LLC with this letter certifying that, based on our knowledge of the status of the groundwater monitoring and corrective measures assessment (CMA) activities at the Ash Pond No. 2 coal combustion residuals (CCR) unit at Hennepin Power Station, a 60-day extension to complete the CMA is justified and valid.

OBG, Part of Ramboll understands the CMA was initiated on April 8, 2019, following identification of a groundwater protection standard exceedance under 40 C.F.R. § 257.95. CMA activities are ongoing, and due to site-specific circumstances, the CMA cannot be completed within 90 days. Accordingly, 60 additional days are warranted based on the following site-specific circumstances:

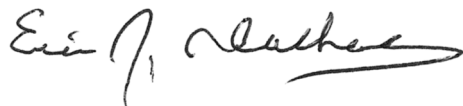
- Communications initiated by the Illinois Environmental Protection Agency (IEPA) in early May 2019 to finalize the Closure and Post-Closure Care Plan submitted for Ash Ponds No. 2 and No. 4, which materially affect the potential corrective measure alternatives considered for Ash Pond No. 2

As used herein, the word "certification" or "certifying" shall mean an expression of the Engineer's professional opinion to the best of his or her information, knowledge, and belief, and does not constitute a warranty or guarantee by the Engineer.

**PROFESSIONAL CERTIFICATION**

I hereby certify that a 60-day extension to the 90-day completion timeframe for the corrective measures assessment is justified and valid pursuant to 40 C.F.R. § 257.96(a).

Very truly yours,  
O'BRIEN & GERE ENGINEERS, INC., A RAMBOLL COMPANY



**Eric J. Tlachac, PE**  
Managing Engineer



Hennepin Ash Pond No. 2 CMA Extension.docx