

**2019 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT**
LINED POND
NEW MADRID POWER PLANT
NEW MADRID, MISSOURI

by Haley & Aldrich, Inc.
Cleveland, Ohio

for Associated Electric Cooperative, Inc.
Springfield, Missouri

File No. 129342-016
August 2019



Table of Contents

	Page
List of Tables	ii
List of Figures	ii
1. Introduction	1
2. 40 CFR § 257.90 Applicability	2
2.1 40 CFR § 257.90(A)	2
2.2 40 CFR § 257.90(E) – SUMMARY	2
2.3 40 CFR § 257.90(E) – INFORMATION	3
2.3.1 40 CFR § 257.90(e)(1) – CCR Unit and Monitoring Well Network	3
2.3.2 40 CFR § 257.90(e)(2) – Monitoring System Changes	3
2.3.3 40 CFR § 257.90(e)(3) – Summary of Sampling Events	3
2.3.4 40 CFR § 257.90(e)(4) – Monitoring Transition Narrative	3
2.3.5 40 CFR § 257.90(e)(5) – Other Requirements	4
2.4 40 CFR § 257.90(F)	4

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

List of Tables

Table No.	Title
I	Summary of Analytical Results

List of Figures

Figure No.	Title
1	Inactive Lined Pond Monitoring Well Locations

1. Introduction

This 2019 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the inactive Lined Pond at the New Madrid Power Plant (NMPP), operated by Associated Electric Cooperative, Inc. (AECI). This Annual Report was developed in accordance with the U.S. Environmental Protection Agency (USEPA) Coal Combustion Residual (CCR) Rule, specifically Code of Federal Regulations Title 40 (40 CFR), subsections 257.90(e) and 257.100(e), effective 19 October 2015 (Rule) including subsequent revisions. Due to the USEPA Response to Partial Vacatur effective 4 October 2016, AECI prepared and placed in the facility's operating record a notification of intent to initiate closure of the Lined Pond by 17 December 2015, in accordance with the requirement under § 257.100(e)(1). Therefore, the alternative reporting timeframes specified in § 257.100(e)(2) through (6) are applicable for the Lined Pond.

This Annual Report documents the groundwater monitoring system for the Lined Pond which is consistent with applicable sections of §§ 257.90 through 257.98, and describes activities conducted prior to July 2019 and documents compliance with the Rule. The specific requirements listed in § 257.90(e)(1) through (5) of the Rule are provided in Section 2 of this Annual Report and are in bold italic font, followed by a short narrative describing how each Rule requirement has been met.

2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a)

Except as provided for in § 257.100 for inactive CCR surface impoundments, all CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.99, except as provided in paragraph (g) of this section.

AECI has installed and certified a groundwater monitoring system at the NMPP Lined Pond. The Lined Pond is a single-unit system subject to the groundwater monitoring and corrective action requirements described under 40 CFR §§ 257.90 through 257.98. This document addresses the requirement for the Owner/Operator to prepare an Annual Report per § 257.90(e).

2.2 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

40 CFR 257.100(e)(5)(ii)

No later than August 1, 2019, prepare the initial groundwater monitoring and corrective action report as set forth in § 257.90(e.)

This Annual Report is the initial report for the NMPP Lined Pond, as required by the Rule. The groundwater monitoring system was established and certified prior to 17 April 2019, as required by § 257.100(e)(5)(i). Prior to 17 April 2019, AECI installed a groundwater monitoring system at the Lined Pond consistent with § 257.91. Groundwater sampling and analysis was conducted in accordance with requirements described in § 257.93, and the status of the groundwater monitoring program described in § 257.94 is provided in this report. This Annual Report documents the activities completed prior to July 2019.

2.3 40 CFR § 257.90(e) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1) – CCR Unit and Monitoring Well Network

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;

As required by § 257.90(e)(1), a map showing the locations of the CCR unit and associated upgradient and downgradient monitoring wells for the Lined Pond is included in this report as Figure 1. In addition, this information is presented in the CCR Groundwater Monitoring Network Description Report prepared for AECL, which was placed in the facility's operating record by 17 April 2019 as required by § 257.105(h)(2).

2.3.2 40 CFR § 257.90(e)(2) – Monitoring System Changes

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;

The design and construction of the monitoring well network for the Lined Pond at NMPP are described in the CCR Groundwater Monitoring Network Description Report dated 16 April 2019. This report was placed in the facility's operating record by 17 April 2019, as required by § 257.105(h)(2). No new monitoring wells were installed or decommissioned since the groundwater monitoring system was certified.

2.3.3 40 CFR § 257.90(e)(3) – Summary of Sampling Events

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;

A total of eight independent detection monitoring samples from each background and downgradient monitoring well were collected during 2018 and 2019 prior to 17 April 2019. A summary table including the sample names, dates of sample collection, and monitoring data obtained for the groundwater monitoring program for the Lined Pond is presented in Table I of this report. The groundwater monitoring sampling and laboratory analyses conducted between 2018 and 2019 were completed under a detection monitoring program.

2.3.4 40 CFR § 257.90(e)(4) – Monitoring Transition Narrative

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 over background levels); and

Detection monitoring was conducted in accordance with § 257.94(b), and no transition between monitoring programs occurred for the Lined Pond in calendar year 2018 or prior to July 2019.

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

2.3.5 40 CFR § 257.90(e)(5) – Other Requirements

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

This initial Annual Report documents activities conducted to comply with §§ 257.90 through 257.94 of the Rule. It is understood that there are supplemental references in §§ 257.90 through 257.98 to information that must be placed in the Annual Report; however, none of the activities referenced as required in the Annual Report are relevant to the groundwater monitoring program for activities completed in the reporting period.

2.4 40 CFR § 257.90(f)

The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

To comply with the Rule recordkeeping requirements:

- Pursuant to § 257.105(h)(1), this Annual Report must be placed in the facility's operating record.
- Pursuant to § 257.106(h)(1), notification must be sent to the relevant State Director and/or Tribal authority within 30 days of this Annual Report being placed in the facility's operating record [§ 257.106(d)].
- Pursuant to § 257.107(h)(1), this Annual Report must be posted to the AECl CCR Website within 30 days of this Annual Report being placed in the facility's operating record [§ 257.107(d)].

TABLE

TABLE I
SUMMARY OF ANALYTICAL RESULTS
 AECI NEW MADRID POWER PLANT
 LINED POND
 NEW MADRID, MISSOURI

Location	Measure Point Elevation (TOC)	Sample Name	Sample Date	Event	Depth to Water (btoc)	Groundwater Elevation (ft AMSL)	Field Parameters				Detection Monitoring - USEPA Appendix III Constituents (mg/L)							Assessment Monitoring - USEPA Appendix IV Constituents (mg/L)										Assessment Monitoring - USEPA Appendix IV Constituents (continued) (mg/L)				Assessment Monitoring - USEPA Appendix IV Constituents (pCi/L)			
							Temperature (Deg C)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total	Calcium, Total	Chloride	Fluoride	Sulfate	pH (su)	TDS	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Lead, Total	Lithium, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Mercury, Total	Fluoride	Radium-226	Radium-226 & 228 Combined	Radium-228	
Up gradient	MW-16	292.85	MW-16	9/12/2018	Round 1	24.80	268.05	17.13	0.880	4.90	6.73	0.051	150	16	1.20	73	6.99	400	--	--	--	<0.0040	<0.00086	<0.0010	0.019	<0.0010	<0.0010	--	--	1.20	2.19	2.78	0.594		
			MW-16	10/25/2018	Round 2	19.82	273.03	16.73	0.828	3.39	6.71	0.034	140	14	1.22	67	7.10	510	<0.0030	0.0021	0.65	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	<0.0010	<0.0010	<0.0010	<0.00020	1.22	1.19	2.30	1.11
			MW-16	12/4/2018	Round 3	18.88	273.97	14.77	748	3.92	6.91	0.052	130	11	1.72	74	7.04	500	<0.0030	0.0034	0.61	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.027	<0.0010	<0.0010	<0.0010	<0.00020	1.72	0.589	1.27	0.679
			MW-16	12/17/2018	Round 4	17.94	274.91	17.38	847	1.17	6.84	0.067	130	11	1.65	120	7.25	560	<0.0030	0.0022	0.65	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.029	<0.0010	<0.0010	<0.0010	<0.00020	1.65	0.559	0.752	0.193
			MW-16	1/7/2019	Round 5	14.80	278.05	16.73	0.767	1.17	7.04	0.050	140	12	1.66	87	7.00	540	<0.0030	0.0028	0.67	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.021	<0.0010	<0.0010	<0.0010	<0.00020	1.66	0.477	1.46	0.979
			MW-16	1/15/2019	Round 6	14.32	278.53	15.94	0.828	1.56	6.77	0.071	140	12	1.71	95	6.97	580	<0.0030	0.0022	0.63	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.022	<0.0010	<0.0010	<0.0010	<0.00020	1.71	1.85	2.64	0.791
			MW-16	1/21/2019	Round 7	15.75	277.10	13.73	0.886	2.69	6.90	0.080	140	13	1.41	100	7.04	680	<0.0030	0.0021	0.65	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	<0.0010	<0.0010	<0.0010	<0.00020	1.41	0.862	2.37	1.51
			MW-16	2/9/2019	Round 8	14.77	278.08	14.13	0.763	1.74	6.79	0.082	130	15	<2.50	99	6.98	690	<0.0030	0.0018	0.65	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	<0.0010	<0.0010	<0.0010	<0.00020	<2.50	0.992	1.91	0.914
			MW-16	2/22/2019	Round 9	10.90	281.95	14.28	0.863	1.03	6.83	0.055	120	13	1.67	90	7.12	520	<0.0030	0.0024	0.66	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.021	<0.0010	<0.0010	<0.0010	<0.00020	1.67	0.611	1.77	1.16
			MW-16	2/22/2019	Round 9 DUP	--	--	--	--	--	--	0.052	120	14	1.68	92	7.01	520	<0.0030	0.0023	0.65	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.021	<0.0010	<0.0010	<0.0010	<0.00020	1.68	1.22	1.45	0.228
	MW-16	3/5/2019	Round 10	8.52	284.33	15.57	0.783	3.47	6.47	0.070	130	14	1.78	88	7.09	600	<0.0030	0.0022	0.63	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	<0.0010	<0.0010	<0.0010	<0.00020	1.78	0.886	1.47	0.586		
	B-123	292.70	B-123	9/11/2018	Round 1	20.65	272.05	16.41	0.684	30.90	7.18	0.027	87	3.7	0.521	31	7.36	330	--	0.0040	0.27	--	--	<0.0040	<0.00086	<0.0010	0.019	0.0040	<0.0010	--	--	0.521	0.604	1.57	0.968
			B-123	10/24/2018	Round 2	20.74	271.96	17.05	0.618	28.3	6.93	0.034	88	3.9	0.390	33	7.71	370	<0.0030	0.0029	0.21	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	0.0041	<0.0010	<0.0010	<0.00020	0.390	0.354	0.818	0.464
			B-123	12/4/2018	Round 3	19.25	273.45	13.84	526	9.94	7.09	0.083	82	4.4	0.582	34	7.39	360	<0.0030	0.0014	0.18	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.027	0.0038	<0.0010	<0.0010	<0.00020	0.582	0.631	0.631	-0.0218
			B-123	12/17/2018	Round 4	18.51	274.19	16.55	568	5.40	7.05	0.036	78	3.2	0.647	36	7.41	380	<0.0030	0.0016	0.18	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.029	0.0046	<0.0010	<0.0010	<0.00020	0.647	0.444	0.494	0.0497
			B-123	1/9/2019	Round 5	20.69	272.01	15.84	0.602	14.8	7.05	0.036	81	3.5	0.582	30	7.34	340	<0.0030	0.0024	0.21	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	0.0037	<0.0010	<0.0010	<0.00020	0.582	0.430	1.01	0.576
			B-123	1/14/2019	Round 6	17.93	274.77	14.56	0.603	21.0	5.23	0.026	83	3.6	0.565	30	7.22	430	<0.0030	0.0027	0.20	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	0.0040	<0.0010	<0.0010	<0.00020	0.565	0.174	0.745	0.571
			B-123	1/21/2019	Round 7	17.33	275.37	10.45	0.581	4.35	7.11	0.037	80	3.8	0.480	33	7.37	410	<0.0030	0.0021	0.18	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	0.0042	<0.0010	<0.0010	<0.00020	0.480	0.121	0.998	0.877
			B-123	2/8/2019	Round 8	16.71	275.99	11.62	0.489	5.23	7.03	0.028	78	3.1	0.515	31	7.29	450	<0.0030	0.0026	0.22	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	0.0044	<0.0010	<0.0010	<0.00020	0.515	0.755	0.998	0.243
			B-123	2/22/2019	Round 9	15.30	277.40	11.61	0.565	8.07	7.03	0.029	66	3.2	0.579	30	7.48	340	<0.0030	0.0014	0.18	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	0.0040	<0.0010	<0.0010	<0.00020	0.579	0.0628	0.775	0.712
			B-123	3/4/2019	Round 10	15.30	277.40	14.18	0.851	39.6	7.02	0.040	80	3.2	0.634	30	7.36	350	<0.0030	0.0021	0.21	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.026	0.0041	<0.0010	<0.0010	<0.00020	0.634	1.53	2.29	0.762
	B-126	293.63	B-126	9/11/2018	Round 1	21.32	272.31	17.23	1.017	90.3	6.86	0.034	130	1.0	0.284	90	7.00	440	--	0.0052	0.31	--	--	<0.0040	0.0019	<0.0010	0.011	<0.0010	<0.0010	--	--	0.284	1.01	1.13	0.116
			B-126	10/24/2018	Round 2	21.62	272.01	17.88	0.330	117	6.49	0.065	67	4.4	0.280	28	7.17	280	<0.0030	0.0052	0.22	<0.0010	<0.00089	0.0064	0.0015	0.011	0.012	0.0038	0.0011	<0.0010	<0.00020	0.280	0.444	1.07	0.621
			B-126	12/4/2018	Round 3	21.05	272.58	13.06	272	70	6.71	0.090	44	2.4	0.446	17	7.09	150	<0.0030	0.0046	0.19	<0.0010	<0.00089	0.010	0.0017	0.0022	0.011	0.0016	<0.0010	<0.0010	<0.00020	0.446	0.000	0.739	0.739
			B-126	12/18/2018	Round 4	20.64	272.99	17.30	219	86.4	6.68	0.029	32	1.4	0.678	16	6.99	220	<0.0030	0.0044	0.16	<0.0010	<0.00089	0.0078	0.0017	0.0029	0.014	<0.0010	0.0018	<0.0010	<0.00020	0.678	0.762	1.13	0.371
			B-126	1/8/2019	Round 5	20.09	273.54	16.79	0.320	227	6.58	0.051	50	2.5	0.501	13	7.04	410	<0.0030	0.0059	0.22	<0.0010	<0.00089	0.012	0.0030	0.0041	0.011	0.0018	0.0013	<0.0010	<0.00020	0.501	0.866	2.33	1.46
			B-126	1/14/2019	Round 6	19.78	273.85	14.49	0.145	140	5.84	0.025	24	1.1	0.551	7.1	6.97	230	<0.0030	0.0041	0.15	<0.0010	<0.00089	0.0070	0.0018	0.0041	<0.010	0.0011	0.0028	<0.0010	<0.00020	0.551	0.543	1.05	0.502
			B-126	1/22/2019	Round 7	18.91	274.72	12.10	0.130	69.2	6.43	0.024	25	1.0	0.434	6.4	7.00	140	<0.0030	0.0034	0.11	<0.0010	<0.00089	0.0041	0.0011	0.0020	<0.010	<0.0010	0.0012	<0.0010	<0.00020	0.434	0.556	1.50	0.948
			B-126	2/8/2019	Round 8	18.90	274.73	12.42	0.098	195	6.44	0.019	17	<1.0	0.400	6.5	6.70	440	<0.0030	0.0038	0.18	<0.0010	<0.00089	0.014	0.0023	0.0078	0.012	<0.0010	0.0031	<0.0010	<0.00020	0.400	0.849	1.04	0.188
			Not Sampled	2/21/2019	Round 9 (No Sample)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-126			3/4/2019	Round 10	16.55	277.08	12.76	0.134	249	6.17	0.026	16	<1.0	0.556	6.4	6.85																			

TABLE I
SUMMARY OF ANALYTICAL RESULTS
 AECI NEW MADRID POWER PLANT
 LINED POND
 NEW MADRID, MISSOURI


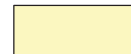
Location	Measure Point Elevation (TOC)	Sample Name	Sample Date	Event	Depth to Water (btoc)	Groundwater Elevation (ft AMSL)	Field Parameters				Detection Monitoring - USEPA Appendix III Constituents (mg/L)							Assessment Monitoring - USEPA Appendix IV Constituents (mg/L)										Assessment Monitoring - USEPA Appendix IV Constituents (continued) (mg/L)				Assessment Monitoring - USEPA Appendix IV Constituents (pCi/L)			
							Temperature (Deg C)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total	Calcium, Total	Chloride	Fluoride	Sulfate	pH (su)	TDS	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Lead, Total	Lithium, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Mercury, Total	Fluoride	Radium-226	Radium-226 & 228 Combined	Radium-228	
							Down Gradient	MW-8	310.63	MW-8	9/12/2018	Round 1	42.30	268.33	17.64	1.17	0.0	7.06	16	180	10	0.290	320	7.20	700	--	0.0045	0.082	--	--	<0.0040	0.0016	<0.0010	0.012	0.86
MW-8	10/24/2018	Round 2	36.10	274.53	17.56	0.990				0.39	6.86	15	170	9.2	0.400	290	7.48	680	<0.0030	0.0052	0.080	<0.0010	<0.00089	<0.0040	0.00086	<0.0010	0.016	0.92	<0.0010	<0.0010	<0.00020	0.400	0.555	1.08	0.529
MW-8	12/3/2018	Round 3	34.90	275.73	15.22	998				2.61	6.94	15	170	9.6	0.354	300	7.22	740	<0.0030	0.0054	0.082	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.021	0.92	<0.0010	<0.0010	<0.00020	0.354	0.744	1.27	0.522
CCR LINED POND DUPLICATE	12/4/2018	Round 3 DUP	--	--	--	--				--	--	15	170	12	0.412	310	7.14	770	<0.0030	0.0055	0.083	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.018	0.93	<0.0010	<0.0010	<0.00020	0.412	0.298	0.387	0.0887
MW-8	12/17/2018	Round 4	33.96	276.67	16.75	1044				1.78	6.97	14	170	9.6	0.447	340	7.37	860	<0.0030	0.0059	0.089	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.021	0.99	<0.0010	<0.0010	<0.00020	0.447	0.264	0.264	-0.139
MW-8	1/7/2019	Round 5	30.32	280.31	16.90	1015				1.85	7.06	16	200	9.0	0.404	360	7.15	960	<0.0030	0.0063	0.098	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.016	1.0	<0.0010	<0.0010	<0.00020	0.404	0.526	1.44	0.911
MW-8	1/15/2019	Round 6	29.21	281.42	16.27	1.141				1.07	5.39	17	200	9.2	0.355	400	7.09	1000	<0.0030	0.0060	0.097	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	0.91	<0.0010	<0.0010	<0.00020	0.355	0.365	0.890	0.525
MW-8	1/22/2019	Round 7	30.72	279.91	14.34	1.054				1.92	6.95	18	200	9.6	<0.250	380	7.12	940	<0.0030	0.0062	0.10	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.016	0.88	<0.0010	<0.0010	<0.00020	<0.250	0.821	1.81	0.987
MW-8	2/5/2019	Round 8	29.52	281.11	14.75	1.021				2.16	6.99	20	200	7.6	0.392	400	7.64	1000	<0.0030	0.0066	0.12	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.019	1.0	<0.0010	<0.0010	<0.00020	0.392	0.620	1.35	0.731
MW-8	2/22/2019	Round 9	21.76	288.87	14.46	1.249				1.78	6.95	26	170	5.9	0.305	410	7.18	1000	<0.0030	0.0071	0.12	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.017	1.1	<0.0010	<0.0010	<0.00020	0.305	0.248	1.51	1.26
MW-8	3/5/2019	Round 10	21.49	289.14	15.16	1.124				1.39	6.73	30	240	6.5	0.386	360	7.24	950	<0.0030	0.016	0.14	0.0027	0.0067	0.0070	0.0036	0.014	0.020	1.1	0.0069	0.0061	<0.00020	0.386	0.610	1.05	0.439
MW-9	9/12/2018	Round 1	42.90	267.34	17.97	0.724				0.80	7.3	2.4	110	20	0.440	110	7.34	470	--	<0.0010	0.074	--	--	<0.0040	<0.00086	<0.0010	0.021	0.34	<0.0010	--	--	0.440	0.147	0.216	0.0688
MW-9	10/25/2018	Round 2	34.76	275.477	17.70	0.693		0.62		2.3	110	19	0.567	110	7.42	440	<0.0030	<0.0010	0.071	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.024	0.34	<0.0010	<0.0010	<0.00020	0.567	0.167	0.466	0.299		
MW-9	12/3/2018	Round 3	33.85	276.39	14.01	706		1.62	6.94	2.8	110	21	0.456	110	7.22	440	<0.0030	<0.0010	0.076	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.029	0.35	<0.0010	<0.0010	<0.00020	0.456	0.325	0.635	0.310		
MW-9	12/17/2018	Round 4	32.82	277.42	17.32	723		1.12	6.96	2.3	110	35	0.538	110	7.51	540	<0.0030	<0.0010	0.077	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.030	0.35	<0.0010	<0.0010	<0.00020	0.538	0.565	0.906	0.341		
DUPLICATE	12/18/2018	Round 4 DUP	--	--	--	--		--	--	--	110	34	0.544	110	7.48	620	<0.0030	<0.0010	0.078	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.030	0.35	<0.0010	<0.0010	<0.00020	0.544	0.442	0.790	0.348		
MW-9	1/7/2019	Round 5	27.65	282.59	6.97	0.657		0.91	16.99	2.5	120	22	0.467	100	7.19	520	<0.0030	<0.0010	0.082	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.025	0.33	<0.0010	<0.0010	<0.00020	0.467	0.538	0.931	0.393		
MW-9	1/15/2019	Round 6	27.03	283.21	16.74	0.718		2.64	6.33	2.2	110	24	0.435	100	7.13	560	<0.0030	<0.0010	0.074	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.023	0.30	<0.0010	<0.0010	<0.00020	0.435	0.465	1.05	0.581		
MW-9	1/21/2019	Round 7	29.91	280.33	13.68	0.751		2.45	6.98	2.2	110	24	0.378	96	7.32	590	<0.0030	<0.0010	0.077	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.022	0.33	<0.0010	<0.0010	<0.00020	0.378	0.424	1.51	1.09		
CCR LINED POND DUPLICATE	1/22/2019	Round 7 DUP	--	--	--	--		--	--	--	110	23	0.382	100	7.39	510	<0.0030	<0.0010	0.075	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.022	0.32	<0.0010	<0.0010	<0.00020	0.382	0.524	1.57	1.05		
MW-9	2/5/2019	Round 8	27.88	282.36	0.647	0.647		1.43	6.94	2.5	110	24	0.399	100	7.57	540	<0.0030	<0.0010	0.082	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.027	0.32	<0.0010	<0.0010	<0.00020	0.399	0.309	0.849	0.540		
MW-9	2/22/2019	Round 9	21.76	288.48	14.91	0.825		0.56	6.84	2.5	92	21	0.361	100	7.24	540	<0.0030	<0.0010	0.088	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.027	0.30	<0.0010	<0.0010	<0.00020	0.361	0.127	0.512	0.385		
MW-9	3/5/2019	Round 10	18.80	291.44	16.82	0.776		2.09	6.68	2.7	120	21	0.483	100	7.32	520	<0.0030	<0.0010	0.088	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.028	0.31	<0.0010	<0.0010	<0.00020	0.483	0.451	1.02	0.572		
CCR LINED POND DUPLICATE	3/5/2019	Round 10 DUP	--	--	--	--		--	--	--	130	22	0.467	100	7.25	540	<0.0030	<0.0010	0.087	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.028	0.32	<0.0010	<0.0010	<0.00020	0.467	0.287	0.867	0.580		
MW-17	12/7/2018	Round 1	23.64	275.56	14.66	564		2.51	6.64	0.038	91	15	0.327	54	7.08	400	<0.0030	0.0027	0.37	<0.0010	<0.00089	<0.0040	0.0012	<0.0010	0.017	0.0012	<0.0010	<0.0010	<0.00020	0.327	1.10	1.67	0.565		
MW-17	12/18/2018	Round 2	23.14	276.06	16.30	10.5		9.62	6.67	0.044	95	8.3	0.342	43	7.04	420	<0.0030	0.0030	0.36	<0.0010	<0.00089	0.0044	<0.00086	<0.0010	0.019	<0.0010	<0.0010	<0.0010	<0.00020	0.342	1.47	2.00	0.531		
MW-17	1/8/2019	Round 3	20.61	278.59	16.12	0.562		9.12	6.6	0.030	95	9.3	0.276	38	6.58	440	<0.0030	0.0030	0.34	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.010	<0.0010	<0.0010	<0.00020	0.276	0.795	2.30	1.50			
MW-17	1/15/2019	Round 4	19.49	279.71	14.37	0.552		9.57	7.27	0.088	82	13	0.260	51	7.00	450	<0.0030	0.0025	0.29	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.016	0.0049	<0.0010	<0.0010	<0.00020	0.260	1.09	1.61	0.519		
MW-17	1/22/2019	Round 5	20.07	279.13	13.52	0.544		7.29	6.80	0.092	88	13	<0.250	48	7.13	380	<0.0030	0.0025	0.29	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.015	0.0038	<0.0010	<0.0010	<0.00020	<0.250	1.54	2.59	1.05		
MW-17	2/8/2019	Round 6	19.65	279.55	13.02	0.507		12.7	6.69	0.10	88	8.9	<0.250	44	7.02	490	<0.0030	0.0027	0.32	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	0.014	0.0011	<0.0010	<0.0010	<0.00020	<0.250	1.30	2.41	1.11		
MW-17	2/22/2019	Round 7	15.98	283.22	14.01	0.628		3.76	6.72	0.075	68	11	<0.250	38	7.22	400	<0.0030	0.0031	0.33	<0.0010	<0.00089	<0.0040	<0.00086	<0.0010	<0.010										

FIGURE

GIS FILE PATH: G:\Projects\AECI\New Madrid\GIS\MXDs\2019_01\LinePondREV2.mxd — USER: rabrown — LAST SAVED: 7/22/2019 12:37:30 PM

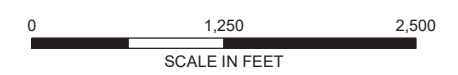


LEGEND

-  MONITORING WELL
-  LINED POND

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI, 19 MAY 2016.



ASSOCIATED ELECTRIC COOPERATIVE, INC.
NEW MADRID POWER GENERATING FACILITY
NEW MADRID COUNTY, MISSOURI

INACTIVE LINED POND
MONITORING WELL
LOCATIONS



AUGUST 2019

FIGURE 1