CCR COMPLIANCE
GROUNDWATER MONITORING AND CORRECTIVE ACTION
ANNUAL REPORT
DUNKIRK LANDFILL

Prepared for:

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Executive Summary

In response to the newly adopted Part A elements (effective September 28, 2020) of the Coal Combustion Residuals (CCR) Rule (or Rule), this Executive Summary has been incorporated into the annual report per the specific provisions as codified in Title 40 Code of Federal Regulations (CFR) §257.90(e)(6). These provisions require that an up-front overview of the current status (covering the immediately preceding calendar year) of groundwater monitoring and corrective action programs be provided in a concise and focused manner for each CCR unit at the facility. Accordingly, the following paragraphs document the respective groundwater monitoring status (for Calendar Year 2023) of the Dunkirk Landfill at the Dunkirk Generating Station, owned by Dunkirk Power LLC. Tables, figures and/or appendices referenced in the discussions below are included at the end of the report and further support the text (Section 2.0) in the main body of the report.

As shown on Figure 1, the Landfill maintains a CCR groundwater monitoring network comprised of five wells, including one upgradient location (Well BR-14-UG) and four downgradient locations (Wells BR-3-DG, BR-12-DG, BR-13-DG, and BR-20-DG). For Calendar Year 2023, the Landfill entered and ended the period in the Assessment Monitoring Program. The Landfill has remained in Assessment Monitoring since being transitioned in early-2018 following confirmed statistically significant increases (SSIs) for several CCR Appendix III constituents, including boron, calcium, chloride, fluoride, and total dissolved solids (TDS) in the downgradient wells (see Table 1).

Assessment Monitoring events for the current period were conducted in May and October 2023 (see Table 2). During the May 2023 event, lithium in downgradient Wells BR-13-DG and BR-20-DG was measured at an elevated concentration, and upgradient Well BR-14-UG also showed an elevated concentration. Each of these values represents a continued observation spanning back to the October 2021 sampling event, wherein downgradient wells BR-3-DG and BR-12-DG were additionally noted to have elevated lithium levels. The October 2023 event again yielded elevated lithium levels, now encompassing downgradient Wells BR-12-DG, BR-13-DG and BR-20-DG. Elevated lithium also persisted in upgradient Well BR-14-UG, marking the fifth consecutive event for this confounding observation.

In March 2022, notification was provided to the New York State Department of Environmental Conservation (NYSDEC) that the elevated lithium results from the October 2021 sampling event were being further investigated, and at that point, did not constitute a statistically significant level (SSL) above the corresponding groundwater protection standard (GWPS). In May 2022, repeat discovery of a beaver dam on the permitted discharge waterway from the landfill was encountered, along with a second dam located upgradient. Corrective actions were taken to breach the

upgradient dam and to construct a piped bypass through the downgradient dam, with both actions intended to alleviate ponding of landfill effluent discharge in this area.

The further investigation noted in the NYSDEC correspondence led to the development and implementation of a study to characterize the geochemistry of the groundwater and leachate associated with the Dunkirk Landfill. This study was a collaboration between the University of Wisconsin-Madison and Vanderbilt University and concluded in late-October 2022. The findings from this body of work (included in Appendix A of the 2022 annual report) provided sufficient evidence to refute the potential influence of Dunkirk Landfill leachate on the lithium concentrations in the downgradient groundwater wells. Historical disposal operations at a neighboring facility were also cited as possibly playing a role in the groundwater concentrations proximate to the western and northern boundaries of the Dunkirk Landfill. This body of work, when combined with the recurrent beaver dam obstructions, has given emphasis to the ongoing applicability of the previously completed Alternate Source Demonstration (December 2020), and the determination that recent lithium levels (from the 2021 through 2023 sampling events) are not recognized as an SSL.

Summarizing the above discussion with specific regard to the new criteria established in §257.90(e)(6), the following elements are noted:

- §257.90(e)(6)(i) – At the beginning of the current annual reporting period, the Dunkirk Landfill was operating under the CCR Assessment Monitoring Program.
- §257.90(e)(6)(ii) – At the conclusion of the current annual reporting period, the Dunkirk Landfill remained in the CCR Assessment Monitoring Program.
- §257.90(e)(6)(iii) – The following SSIs for Appendix III constituents were observed in the downgradient wells during the current annual reporting period:
  - Well BR-3-DG – calcium, chloride, and sulfate
  - Well BR-12-DG – calcium, chloride, and TDS
  - Well BR-13-DG – chloride
  - Well BR-20-DG – boron, chloride, fluoride, and TDS

  This same general subset of Appendix III constituents triggered the Dunkirk Landfill into the CCR Assessment Monitoring Program in early-2018, wherein it has since remained.
- §257.90(e)(6)(iv) – Lithium was measured above the GWPS in downgradient Wells BR-13-DG and BR-20-DG during the May 2023 monitoring event. Lithium was measured above the GWPS during the October 2023 monitoring event in downgradient Wells BR-12-DG, BR-13-DG, and BR-20-DG. These observations do not constitute an SSL for lithium as noted in the discussions above.

- §257.90(e)(6)(v) – The Dunkirk Landfill is not currently subject to corrective action or any associated remedy selection under §257.97.
- §257.90(e)(6)(vi) – The Dunkirk Landfill is not currently subject to corrective action or any associated remedy implementation under §257.98.

1.0 Introduction

Title 40 Code of Federal Regulations (CFR) §257.90 mandates that existing Coal Combustion Residuals (CCR) landfills and surface impoundments, also known as CCR units, be subject to groundwater monitoring and corrective action requirements as further detailed in §257.91 through §257.98. These requirements are part of the overall CCR Rule (or Rule) which was published in the Federal Register on April 17, 2015 and which became effective on October 19, 2015. Specific obligations for Owners and Operators of existing CCR units regarding the preparation of "Annual Groundwater Monitoring and Corrective Action Reports (Annual Report)" are outlined in §257.90(e)(1-5). The first Annual Report was completed on January 31, 2018, and provided information, per the Rule, to address the following aspects for the preceding calendar year:

- Document the status of the groundwater monitoring and corrective action program for the respective CCR units;
- Summarize key actions completed;
- Describe any problems encountered and actions taken to resolve the problems; and
- Offer a projection of key activities for the upcoming year.

At a minimum, the Annual Report must contain the following information to the extent applicable and available, and must also address the items contained in §257.90(e)(6) in the form of an Executive Summary:

- A map, aerial image, or diagram showing the CCR unit and all background/upgradient and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program;
- 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;
- 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/upgradient and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
- 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
- Any other information required to be included as specified in §257.90 through §257.98.

The Dunkirk Generating Station, owned by Dunkirk Power LLC, is a coal-fired power plant located in Dunkirk, New York. The facility was decommissioned and ceased electric generating operations in early-2016, subsequent to the effective date of the Rule. The Rule applies to this facility due to the continued management/disposal of CCR materials resulting from sustained operations and maintenance activities. Accordingly, the Station's captive disposal site, located in Pomfret, New York and identified as the Dunkirk Landfill, has been designated as an existing CCR unit. This unit has a dedicated groundwater monitoring well network that meets the requirements of §257.91 with regard to number and appropriate locations of wells (certification previously provided under separate cover).

In summary, this seventh Annual Report has been prepared to comply with the requirements of §257.90(e) with respect to documenting the groundwater monitoring and corrective actions undertaken during Calendar Year 2023 for the Dunkirk Landfill CCR unit. This Annual Report and all subsequent reports thereto will be placed in the Station's operating record per §257.105(h)(1), noticed to the State Director per §257.106(h)(1), and posted to the publicly accessible internet site per §257.107(h)(1).

The previously prepared six Annual Report (covering the 2022 Calendar Year reporting period) was completed on January 31, 2023 and placed into the facility operating record on this same date. Subsequent notification to the State Director and posting to the publicly accessible website was completed on March 1, 2023.

2.0 Dunkirk Landfill

2.1 Groundwater Monitoring Network

The CCR groundwater monitoring system for the Dunkirk Landfill is comprised of five wells, including Well BR-14-UG (upgradient), and Wells BR-3-DG, BR-12-DG, BR-13-DG, and BR-20-DG (downgradient). The locations of the wells are shown on the attached Figure 1, along with depiction of the generalized groundwater flow direction in the area of the landfill. Each of these wells was already existing, and no new wells were added nor were any existing wells abandoned/replaced during the 2023 reporting period.

2.2 2023 Data Collection

Following its transition in early-2018, the Dunkirk Landfill continued in the CCR Assessment Monitoring Program during the 2023 reporting period. Accordingly, samples were collected and analyzed for Appendix III and Appendix IV constituents as required, during the May and October monitoring events. Results from the 2023 sampling events are summarized in Tables 1 and 2, covering Appendix III and Appendix IV constituents, respectively. As shown in Table 2, lithium in downgradient Wells BR-13-DG and BR-20-DG was measured at elevated levels of 0.07 and 0.43 mg/L, respectively, during the May event. The October event showed similar results with elevated lithium concentrations reported in downgradient Wells BR-12-DG (0.06 mg/L), BR-13-DG (0.08 mg/L), and BR-20-DG (0.40 mg/L). Upgradient Well BR-14-UG also continued with suspect readings for lithium during each of the 2023 sampling events, marking the fifth and sixth consecutive measurable levels for this constituent spanning back to the May 2021 event.

Dating back to the October 2021 sampling event, lithium was detected in each of the downgradient Wells BR-3-DG (0.06 mg/L), BR-12-DG (0.07 mg/L), BR-13-DG (0.10 mg/L), and BR-20-DG (0.48 mg/L) at concentrations that could potentially represent a significantly significant level (SSL) above the Groundwater Protection Standard of 0.05 mg/L. Accordingly, in March 2022, notification was made to the New York State Department of Environmental Conservation (NYSDEC) with indications that further investigation of these values would be conducted to determine their status as potential SSLs more clearly. This investigation took the form of a geochemistry study designed to characterize, compare, and contrast the composition and properties of groundwater and leachate associated with the Dunkirk Landfill. The study was implemented in April 2022, and was a joint collaboration involving resources from the University of Wisconsin-Madison and Vanderbilt University, and the Vanderbilt analytical laboratory facilities. The study concluded in late-October 2022, with the findings published in a summary document, a copy of which was included in Appendix A of the 2022 Annual Report. The findings from this body of work provided sufficient evidence to refute the potential influence of Dunkirk Landfill leachate on the lithium concentrations in the downgradient groundwater wells. Historical disposal operations

at a neighboring facility were also cited as possibly playing a role in the groundwater concentrations proximate to the western and northern boundaries of the Dunkirk Landfill.

In tandem with the above, and during a May 2022 walkdown of the Dunkirk Landfill and surrounding environs, it was discovered that a beaver dam had been reconstructed along the waterway that serves as the permitted discharge pathway for the landfill effluent. Further reconnaissance revealed a second dam in an upgradient location on this same waterway. To alleviate the damming and ponding water effects caused by the obstructions, corrective actions were undertaken to breach the upgradient dam and install a piped bypass in the lower dam. Acknowledging the impacts that earlier discovered dams created in 2020, the previously completed Alternate Source Demonstration (December 2020) remains relevant and applicable for the observations during the 2023 sampling events, particularly in the area of Well BR-20-DG. The findings from the geochemistry study further serve to offer potential rationale for groundwater in the area of Well BR-20-DG and in reaches along the western and northern limits of the Dunkirk Landfill property (in the directions of Wells BR-12-DG and BR-13-DG). Collectively, the information provides convincing evidence that the elevated lithium concentrations do not constitute SSLs tied in any way to the Dunkirk Landfill.

2.3 2023 Monitoring Program Transitions

During 2023, there were no transitions between monitoring programs, with the Dunkirk Landfill remaining in the CCR Assessment Monitoring Program.

2.4 2023 Corrective Actions

During 2023, there were no corrective actions undertaken specific to the CCR Rule.

2.5 2024 Projected Activities

It is anticipated that Assessment Monitoring activities will continue for the Dunkirk Landfill during 2024, with continued review of Appendix III/Appendix IV constituent concentrations and comparison against calculated background and established groundwater protection standards.

Tables

Table 1
Dunkirk Power LLC
Dunkirk Landfill – Groundwater Analytical Data
CCR Appendix III Constituents

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
		Calculated Background						
		0.270	135	5.1	0.22	699	254	5.79-8.38
BR-14-UG (Upgradient)	17-Nov-15	0.183	100	3.6	< 0.20	370	82	7.53
	9-Feb-16	0.200	89	3.4	< 0.20	435	78	6.56
	11-May-16	0.164	86	3.1	0.22	430	73	7.24
	30-Aug-16	0.185	87	3.6	< 0.20	470	87	6.98
	9-Nov-16	0.160	92	4.1	< 0.20	575	159	7.33
	14-Feb-17	0.175	108	4.3	< 0.20	480	133	7.17
	16-May-17	0.157	81	3.5	< 0.20	460	91	7.42
	15-Aug-17	0.228	111	3.4	0.21	505	128	6.42
	2-Oct-17	0.154	103	4.0	< 0.20	570	147	7.10
	9-May-18	0.121	80	2.5	< 0.20	385	51	7.29
	9-Oct-18	0.199	81	3.4	0.22	440	78	7.29
	11-Mar-19	0.254	97	3.0	< 0.20	465	62	7.37
	15-May-19	0.170	89	2.9	< 0.20	425	52	7.30
	1-Oct-19	0.190	91	3.5	0.23	500	95	7.31
	11-Feb-20	0.195	90	2.9	< 0.20	355	58	7.21
	13-May-20	0.164	92	2.8	< 0.20	420	67	7.38
	20-Oct-20	0.181	106	3.4	< 0.20	610	155	7.31
	11-May-21	0.158	100	3.2	0.39	565	78	7.02
	12-Oct-21	0.246	95	2.9	< 0.20	505	86	7.07
	10-May-22	0.168	100	3.1	< 0.20	445	70	6.99
	4-Oct-22	0.170	97	3.3	< 0.20	525	143	6.78
	17-May-23	0.151	82	3.0	< 0.20	470	75	7.46
	24-Oct-23	0.372	81	3.0	< 0.20	440	95	7.13
BR-3-DG (Downgradient)	17-Nov-15	0.098	141	45.9	< 0.20	545	159	7.23
	9-Feb-16	0.078	119	32.8	< 0.20	590	155	7.50
	11-May-16	0.098	111	23.0	< 0.20	560	137	7.16
	30-Aug-16	0.096	114	28.8	< 0.20	585	159	7.01
	9-Nov-16	0.088	115	84.9	< 0.20	705	152	7.13
	14-Feb-17	0.092	151	99.7	< 0.20	590	161	7.19
	16-May-17	0.062	113	58.1	< 0.20	580	150	6.55
	15-Aug-17	0.135	139	69.4	0.27	600	158	6.98
	2-Oct-17	0.095	134	77.4	0.38	700	165	7.32
	9-May-18	0.068	145	34.9	< 0.20	585	147	7.12
	8-Oct-18	0.109	106	33.5	0.22	565	155	7.24
	11-Mar-19	0.097	157	24.3	< 0.20	600	166	7.48
	15-May-19	0.125	125	19.0	< 0.20	500	153	7.03
	1-Oct-19	0.150	140	26.2	0.25	635	153	6.99
	11-Feb-20	0.137	129	19.9	< 0.20	520	163	6.93
	12-May-20	0.097	140	21.5	< 0.20	625	230	7.52
	20-Oct-20	0.091	132	25.5	< 0.20	665	191	7.32
	11-May-21	0.063	168	22.3	0.32	850	345	7.19
	12-Oct-21	0.115	155	19.9	0.48	745	275	7.31
	10-May-22	0.058	151	18.9	< 0.20	950	342	7.51
	4-Oct-22	0.087	129	47.9	< 0.20	795	272	7.11
	17-May-23	0.065	164	13.7	< 0.20	400	327	7.47
	24-Oct-23	0.087	128	14.4	< 0.20	695	222	7.6

See notes at end of table.

Table 1 (cont'd)
Dunkirk Power LLC
Dunkirk Landfill – Groundwater Analytical Data
CCR Appendix III Constituents

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
		Calculated Background						
		0.270	135	5.1	0.22	699	254	5.79-8.38
BR-12-DG (Downgradient)	17-Nov-15	0.163	197	319	< 0.20	825	66	6.94
	9-Feb-16	0.104	177	263	< 0.20	920	151	7.00
	11-May-16	0.083	156	158	< 0.20	780	168	7.29
	30-Aug-16	0.173	166	329	< 0.20	1040	70	7.04
	9-Nov-16	0.179	222	375	< 0.20	1260	62	7.00
	14-Feb-17	0.117	241	422	< 0.20	1030	109	7.07
	16-May-17	0.068	160	299	< 0.20	1100	139	6.54
	15-Aug-17	0.181	174	299	< 0.20	1030	83	6.99
	2-Oct-17	0.163	196	421	1.04	1250	70	6.94
	9-May-18	0.061	205	260	< 0.20	950	147	6.69
	8-Oct-18	0.169	171	382	< 0.20	1120	71	6.91
	11-Mar-19	0.073	244	213	< 0.20	920	154	7.16
	15-May-19	0.066	175	188	< 0.20	945	156	6.91
	1-Oct-19	0.142	241	323	0.29	1340	85	6.91
	11-Feb-20	0.092	181	224	< 0.20	785	147	6.78
	12-May-20	0.079	179	183	< 0.20	815	194	7.05
	20-Oct-20	0.176	196	395	< 0.20	1470	67	7.09
	11-May-21	0.077	198	228	0.25	860	169	7.19
	12-Oct-21	0.165	181	285	< 0.20	855	91	6.95
	10-May-22	0.061	183	167	< 0.20	845	188	7.42
	4-Oct-22	0.144	173	491	< 0.20	1550	74	7.03
	17-May-23	0.076	174	154	< 0.20	905	209	7.51
	24-Oct-23	0.135	169	350	< 0.20	1070	88	7.22
BR-13-DG (Downgradient)	17-Nov-15	0.223	109	8.8	< 0.20	495	67	7.23
	9-Feb-16	0.162	109	7.9	< 0.20	560	129	7.25
	11-May-16	0.151	115	7.1	< 0.20	620	161	7.23
	30-Aug-16	0.304	118	8.6	< 0.20	560	59	7.09
	9-Nov-16	0.164	85	7.3	< 0.20	560	127	7.20
	14-Feb-17	0.144	113	7.6	< 0.20	545	140	7.21
	16-May-17	0.103	97	7.1	< 0.20	585	142	6.79
	15-Aug-17	0.274	103	8.4	0.21	500	60	7.03
	2-Oct-17	0.240	96	8.4	< 0.20	565	41	7.19
	9-May-18	0.109	131	6.7	< 0.20	540	108	7.05
	8-Oct-18	0.252	89	8.9	< 0.20	555	72	7.09
	11-Mar-19	0.172	126	8.2	< 0.20	545	122	7.07
	15-May-19	0.134	123	7.8	< 0.20	585	137	7.11
	1-Oct-19	0.278	94	8.7	0.26	615	29	7.13
	11-Feb-20	0.173	115	8.5	< 0.20	470	99	6.78
	12-May-20	0.153	125	7.9	< 0.20	545	159	7.21
	20-Oct-20	0.322	102	9.0	0.27	500	32	7.56
	11-May-21	0.144	120	8.3	0.38	645	118	7.19
	12-Oct-21	0.269	103	9.0	0.63	375	54	7.09
	10-May-22	0.129	121	9.2	< 0.20	625	136	7.61
	4-Oct-22	0.280	83	9.1	0.20	480	43	7.25
	17-May-23	0.159	112	8.9	< 0.20	600	132	7.37
	24-Oct-23	0.250	84	9.0	< 0.20	475	36	7.39

See notes at end of table.

Table 1 (cont'd)
Dunkirk Power LLC
Dunkirk Landfill – Groundwater Analytical Data
CCR Appendix III Constituents

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
		Calculated Background						
		0.270	135	5.1	0.22	699	254	5.79-8.38
BR-20-DG (Downgradient)	17-Nov-15	1.42	26	2.8	< 0.20	670	102	7.61
	9-Feb-16	1.40	24	12.2	0.35	725	< 2.0	7.74
	11-May-16	1.44	22	33.0	0.35	720	< 2.0	7.85
	30-Aug-16	1.39	24	25.4	0.36	685	< 4.0	6.97
	9-Nov-16	1.35	19	15.5	0.22	675	< 2.0	7.69
	14-Feb-17	1.56	25	16.5	0.39	635	< 2.0	7.69
	16-May-17	1.37	21	15.5	< 0.20	675	< 2.0	7.71
	15-Aug-17	1.42	25	38.3	0.41	655	< 2.0	7.58
	2-Oct-17	1.24	22	21.6	0.42	720	< 4.0	7.32
	9-May-18	1.09	21	21.3	0.40	650	< 4.0	7.49
	8-Oct-18	1.41	21	14.9	0.39	640	< 2.0	7.58
	12-Mar-19	1.35	22	19.8	0.42	725	< 4.0	7.54
	15-May-19	1.27	24	23.7	0.33	765	< 4.0	7.71
	1-Oct-19	1.45	22	17.7	0.42	575	< 4.0	7.73
	11-Feb-20	1.47	25	28.3	< 0.20	630	< 4.0	7.73
	12-May-20	1.47	26	18.1	0.31	635	< 4.0	7.52
	20-Oct-20	1.42	25	31.0	0.44	650	< 2.0	7.92
	11-May-21	1.26	24	59.6	0.54	865	< 2.0	7.80
	12-Oct-21	1.50	26	15.5	0.85	425	< 4.0	7.51
	10-May-22	1.29	29	23.2	0.36	690	< 2.0	7.89
	4-Oct-22	1.36	20	31.4	0.41	680	< 2.0	7.79
	17-May-23	1.32	23	23.5	0.41	710	< 2.0	8.05
	24-Oct-23	1.29	21	14.8	0.36	625	2.1	7.83

Notes:

1. Cells with "<" are represented as non-detects. Values shown correspond to the laboratory reporting limit.
2. Background values based on statistical evaluation of initial eight rounds (Nov. 2015 through Aug. 2017) of groundwater sampling data for Well BR-14-UG.

Table 2
Dunkirk Power LLC
Dunkirk Landfill – Groundwater Analytical Data
CCR Appendix IV Constituents

Monitoring Well	Date Sampled	Total Antimony (mg/L)	Total Arsenic (mg/L)	Total Barium (mg/L)	Total Beryllium (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Cobalt (mg/L)	Total Fluoride (mg/L)	Total Lead (mg/L)	Total Lithium (mg/L)	Total Mercury (mg/L)	Total Molybdenum (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)	Total Radium-226 and 228 (pCi/L)
		Calculated Background														
		0.0025	0.009	0.68	0.004	0.005	0.005	0.05	0.22	0.005	0.05	0.000001	0.01	0.005	0.0007	1.25
		Groundwater Protection Standard														
		MCL	MCL	MCL	Background	MCL	MCL	Background	MCL	RSL	Background	MCL	RSL	MCL	MCL	MCL
		0.006	0.01	2	0.004	0.005	0.1	0.05	4.0	0.015	0.05	0.002	0.10	0.05	0.002	5
BR-14-UG (Upgradient)	17-Nov-15	< 0.060	0.009	0.21	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.23
	9-Feb-16	< 0.060	< 0.005	0.33	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.24
	11-May-16	< 0.060	< 0.005	0.20	< 0.005	< 0.005	< 0.005	< 0.050	0.22	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.18
	30-Aug-16	< 0.060	0.008	0.24	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	0.0000005	< 0.010	< 0.005	< 0.010	1.25
	9-Nov-16	< 0.060	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.23
	14-Feb-17	< 0.060	< 0.005	0.09	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.22
	16-May-17	0.0010	< 0.005	0.11	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.33
	15-Aug-17	0.0025	< 0.005	0.10	< 0.004	< 0.005	< 0.005	< 0.050	0.21	< 0.005	< 0.050	< 0.0000010	< 0.010	< 0.005	< 0.0007	< 1.22
	29-Mar-18	< 0.0004	< 0.005	0.13	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.00
	9-May-18	Not Analyzed	Not Analyzed	0.12	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.29
	9-Oct-18	Not Analyzed	Not Analyzed	0.14	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.22	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.29
	11-Mar-19	< 0.0004	0.005	0.20	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.63
	15-May-19	Not Analyzed	< 0.01	0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.003	Not Analyzed	0.0000016	Not Analyzed	Not Analyzed	Not Analyzed	0.77
	1-Oct-19	Not Analyzed	< 0.005	0.12	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.23	< 0.005	Not Analyzed	0.0000007	Not Analyzed	Not Analyzed	Not Analyzed	0.43
	11-Feb-20	< 0.0004	< 0.005	0.17	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.87
	13-May-20	< 0.0004	Not Analyzed	0.18	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	0.0000008	Not Analyzed	Not Analyzed	Not Analyzed	1.23
	20-Oct-20	< 0.0004	Not Analyzed	0.12	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	0.0000006	Not Analyzed	Not Analyzed	Not Analyzed	0.76
	11-May-21	< 0.0004	< 0.005	0.18	< 0.0003	< 0.005	< 0.005	< 0.050	0.39	< 0.005	0.178	0.0000018	< 0.010	< 0.005	< 0.0003	0.11
	12-Oct-21	Not Analyzed	Not Analyzed	0.21	Not Analyzed	Not Analyzed	0.007	Not Analyzed	< 0.20	Not Analyzed	0.060	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.72
	10-May-22	< 0.0004	< 0.005	0.23	< 0.0005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	0.060	< 0.0000005	< 0.010	< 0.005	< 0.0005	0.24
	4-Oct-22	< 0.0004	Not Analyzed	0.08	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	0.060	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.27
	17-May-23	< 0.0004	< 0.01	0.18	< 0.0003	< 0.005	< 0.010	< 0.050	< 0.20	0.003	0.060	0.0000008	< 0.050	< 0.005	< 0.0003	0.31
	24-Oct-23	< 0.0004	< 0.005	0.14	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.005	0.060	0.0000014	Not Analyzed	Not Analyzed	Not Analyzed	1.00
BR-3-DG (Downgradient)	17-Nov-15	< 0.060	0.008	0.05	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	0.006	< 0.050	< 0.0000005	< 0.010	< 0.005	0.012	0.22
	9-Feb-16	< 0.060	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.22
	11-May-16	< 0.060	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.76
	30-Aug-16	< 0.060	0.008	0.04	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.23
	9-Nov-16	< 0.060	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.28
	14-Feb-17	< 0.060	0.006	0.04	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.31
	16-May-17	0.0016	< 0.005	0.03	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.28
	15-Aug-17	0.0040	< 0.005	0.05	< 0.004	< 0.005	< 0.005	< 0.050	0.27	< 0.005	< 0.050	< 0.0000010	< 0.010	< 0.005	< 0.0007	1.23
	29-Mar-18	< 0.0004	< 0.005	0.04	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.00
	9-May-18	Not Analyzed	Not Analyzed	0.03	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.20
	8-Oct-18	Not Analyzed	Not Analyzed	0.03	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.22	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.58
	11-Mar-19	< 0.0004	< 0.005	0.03	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	0.006	< 0.050	0.0000030	< 0.010	< 0.005	< 0.0003	0.54
	15-May-19	Not Analyzed	< 0.01	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.003	Not Analyzed	0.0000028	Not Analyzed	Not Analyzed	Not Analyzed	3.48
	1-Oct-19	Not Analyzed	< 0.005	0.04	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.25	< 0.005	Not Analyzed	0.0000016	Not Analyzed	Not Analyzed	Not Analyzed	0.81
	11-Feb-20	< 0.0004	< 0.005	0.03	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	0.0000014	< 0.010	< 0.005	< 0.0003	1.19
	12-May-20	< 0.0004	Not Analyzed	0.03	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	0.0000009	Not Analyzed	Not Analyzed	Not Analyzed	0.89
	20-Oct-20	0.0007	Not Analyzed	0.03	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	0.0000006	Not Analyzed	Not Analyzed	Not Analyzed	0.03
	11-May-21	< 0.0004	< 0.005	0.03	< 0.0003	< 0.005	< 0.005	< 0.050	0.32	< 0.005	0.119	0.0000016	< 0.010	< 0.005	< 0.0003	0.57/0.71
	12-Oct-21	Not Analyzed	Not Analyzed	0.04	Not Analyzed	Not Analyzed	0.019	Not Analyzed	0.48	Not Analyzed	0.060	0.0000011	Not Analyzed	Not Analyzed	Not Analyzed	0.55
	10-May-22	< 0.0004	< 0.005	0.02	< 0.0005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	0.050	0.000001	< 0.010	< 0.005	< 0.0005	0.21
	4-Oct-22	< 0.0004	Not Analyzed	0.02	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.48
	17-May-23	0.0005	< 0.01	0.03	< 0.0003	< 0.005	< 0.010	< 0.050	< 0.20	< 0.003	0.050	0.0000015	< 0.050	< 0.005	< 0.0003	1.51
	24-Oct-23	< 0.0004	< 0.005	0.03	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.005	0.050	0.0000016	Not Analyzed	Not Analyzed	Not Analyzed	1.96
BR-12-DG (Downgradient)	17-Nov-15	< 0.060	0.006	0.07	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	0.014	0.35
	9-Feb-16	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.16
	11-May-16	< 0.060	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.31
	30-Aug-16	< 0.060	0.009	0.09	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.61
	9-Nov-16	< 0.060	< 0.005	0.08	< 0.005	< 0.005	0.045	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.45
	14-Feb-17	< 0.060	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.22
	16-May-17	0.0022	< 0.005	0.04	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.22
	15-Aug-17	0.0045	< 0.005	0.08	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000010	< 0.010	< 0.005	< 0.0007	0.32
	29-Mar-18	< 0.0004	< 0.005	0.05	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.00
	9-May-18	Not Analyzed	Not Analyzed	0.04	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.32
	8-Oct-18	Not Analyzed	Not Analyzed	0.07	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.67
	11-Mar-19	< 0.0004	< 0.005	0.03	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	1.16
	15-May-19	Not Analyzed	< 0.01	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.003	Not Analyzed	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.49
	1-Oct-19	Not Analyzed	< 0.005	0.06	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.29	< 0.005	Not Analyzed	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.89
	11-Feb-20	< 0.0004	< 0.005	0.05	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	1.34
	12-May-20	< 0.0004	Not Analyzed	0.04	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.47
	20-Oct-20	< 0.0004	Not Analyzed	0.09	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.77
	11-May-21	< 0.0004	< 0.005	0.05	< 0.0003	< 0.005	0.007	< 0.050	0.25	< 0.005	0.145	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.79
	12-Oct-21	Not Analyzed	Not Analyzed	0.08	Not Analyzed	Not Analyzed	< 0.010	Not Analyzed	< 0.20	Not Analyzed	0.070	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.44
	10-May-22	< 0.0004	< 0.005	0.03	< 0.0005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	0.040	< 0.0000005	< 0.010	< 0.005	< 0.0005	0.74
	4-Oct-22	< 0.0004	Not Analyzed	0.07	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	0.070	0.0000007	Not Analyzed	Not Analyzed	Not Analyzed	1.64
	17-May-23	< 0.0004	< 0.01	0.03	< 0.0003	< 0.005	< 0.010	< 0.050	< 0.20	0.004	0.050	< 0.0000005	< 0.050	< 0.005	< 0.0003	1.25
	24-Oct-23	< 0.0004	< 0.005	0.06	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.005	0.060	0.0000037	Not Analyzed	Not Analyzed	Not Analyzed	-0.98

See notes at end of table.

Table 2 (cont'd)
Dunkirk Power LLC
Dunkirk Landfill – Groundwater Analytical Data
CCR Appendix IV Constituents

Monitoring Well	Date Sampled	Total Antimony (mg/L)	Total Arsenic (mg/L)	Total Barium (mg/L)	Total Beryllium (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Cobalt (mg/L)	Total Fluoride (mg/L)	Total Lead (mg/L)	Total Lithium (mg/L)	Total Mercury (mg/L)	Total Molybdenum (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)	Total Radium-226 and 228 (pCi/L)
		Calculated Background														
		0.0025	0.009	0.68	0.004	0.005	0.005	0.05	0.22	0.005	0.05	0.000001	0.01	0.005	0.0007	1.25
		Groundwater Protection Standard														
		MCL	MCL	MCL	Background	MCL	MCL	Background	MCL	RSL	Background	MCL	RSL	MCL	MCL	MCL
		0.006	0.01	2	0.004	0.005	0.1	0.05	4.0	0.015	0.05	0.002	0.10	0.05	0.002	5
BR-13-DG (Downgradient)	17-Nov-15	< 0.060	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	0.012	0.36
	9-Feb-16	< 0.060	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.45
	11-May-16	< 0.060	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.44
	30-Aug-16	< 0.060	0.008	0.11	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.39
	9-Nov-16	< 0.060	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.33
	14-Feb-17	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.17
	16-May-17	0.0015	< 0.005	0.05	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.24
	15-Aug-17	0.0030	< 0.005	0.09	< 0.004	< 0.005	< 0.005	< 0.050	0.21	< 0.005	< 0.050	< 0.0000010	< 0.010	< 0.005	< 0.0007	0.34
	29-Mar-18	< 0.0004	< 0.005	0.07	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.00
	9-May-18	Not Analyzed	Not Analyzed	0.06	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.37
	8-Oct-18	Not Analyzed	Not Analyzed	0.09	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	1.87
	11-Mar-19	< 0.0004	0.006	0.07	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	1.12
	15-May-19	Not Analyzed	< 0.01	< 0.20	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.003	Not Analyzed	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.09
	1-Oct-19	Not Analyzed	< 0.005	0.09	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.26	< 0.005	Not Analyzed	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.13
	11-Feb-20	< 0.0004	< 0.005	0.08	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.65
	12-May-20	< 0.0004	Not Analyzed	0.08	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	Not Analyzed	< 0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.18
	20-Oct-20	< 0.0004	Not Analyzed	0.10	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.27	Not Analyzed	< 0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	1.21
	11-May-21	< 0.0004	< 0.005	0.07	< 0.0003	< 0.005	0.007	< 0.050	0.38	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	0.34
	12-Oct-21	Not Analyzed	Not Analyzed	0.08	Not Analyzed	Not Analyzed	< 0.010	Not Analyzed	0.63	Not Analyzed	0.100	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.48
	10-May-22	< 0.0004	< 0.005	0.04	< 0.0005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	0.070	< 0.0000005	< 0.010	< 0.005	< 0.0005	1.29
	4-Oct-22	< 0.0004	Not Analyzed	0.07	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.20	Not Analyzed	0.100	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	0.74
	17-May-23	< 0.0004	0.003	0.07	< 0.0003	< 0.005	< 0.010	< 0.050	< 0.20	< 0.003	0.070	< 0.0000005	< 0.050	< 0.005	< 0.0003	0.99
	24-Oct-23	< 0.0004	< 0.005	0.09	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	< 0.20	< 0.005	0.080	0.0000021	Not Analyzed	Not Analyzed	Not Analyzed	0.19
BR-20-DG (Downgradient)	17-Nov-15	< 0.060	0.006	1.50	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.53
	9-Feb-16	< 0.060	< 0.005	1.83	< 0.005	< 0.005	< 0.005	< 0.050	0.35	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	1.71
	11-May-16	< 0.060	< 0.005	1.57	< 0.005	< 0.005	0.006	< 0.050	0.35	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	2.13
	30-Aug-16	< 0.060	0.006	1.93	< 0.005	< 0.005	< 0.005	< 0.050	0.36	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	2.04
	9-Nov-16	< 0.060	< 0.005	1.25	< 0.005	< 0.005	< 0.005	< 0.050	0.22	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	0.61
	14-Feb-17	< 0.060	< 0.005	1.88	< 0.005	< 0.005	< 0.005	< 0.050	0.39	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.010	2.20
	16-May-17	0.0014	< 0.005	1.53	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.99
	15-Aug-17	0.0016	< 0.005	1.84	< 0.004	< 0.005	< 0.005	< 0.050	0.41	< 0.005	< 0.050	< 0.0000010	< 0.010	< 0.005	< 0.0007	0.77
	29-Mar-18	< 0.0004	< 0.005	2.00	< 0.0003	< 0.005	< 0.005	< 0.050	0.36	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	2.01
	9-May-18	Not Analyzed	Not Analyzed	1.51	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.40	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	2.02
	8-Oct-18	Not Analyzed	Not Analyzed	1.58	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.39	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.87
	12-Mar-19	< 0.0004	< 0.005	1.51	< 0.0003	< 0.005	< 0.005	< 0.050	0.42	< 0.005	< 0.050	< 0.0000005	< 0.010	< 0.005	< 0.0003	1.24
	15-May-19	Not Analyzed	< 0.01	1.60	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.33	< 0.003	Not Analyzed	0.0000008	Not Analyzed	Not Analyzed	Not Analyzed	1.89
	1-Oct-19	Not Analyzed	< 0.005	1.38	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.42	< 0.005	Not Analyzed	0.0000008	Not Analyzed	Not Analyzed	Not Analyzed	1.22
	11-Feb-20	0.0004	< 0.005	1.84	< 0.0003	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	0.139	< 0.0000005	< 0.010	< 0.005	< 0.0003	1.43
	12-May-20	0.0005	Not Analyzed	1.95	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.31	Not Analyzed	0.266	0.0000024	Not Analyzed	Not Analyzed	Not Analyzed	1.07
	20-Oct-20	< 0.0004	Not Analyzed	1.99	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.44	Not Analyzed	< 0.050	< 0.0000005	Not Analyzed	Not Analyzed	Not Analyzed	2.33
	11-May-21	< 0.0004	< 0.005	1.66	< 0.0003	< 0.005	< 0.005	< 0.050	0.54	< 0.005	< 0.050	0.0000015	< 0.010	< 0.005	< 0.0003	1.80
	12-Oct-21	Not Analyzed	Not Analyzed	2.0	Not Analyzed	Not Analyzed	0.007	Not Analyzed	0.85	Not Analyzed	0.480	0.0000006	Not Analyzed	Not Analyzed	Not Analyzed	1.74
	10-May-22	0.0005	< 0.005	1.42	< 0.0005	< 0.005	< 0.005	< 0.050	0.36	< 0.005	0.400	< 0.0000005	< 0.010	< 0.005	< 0.0005	0.92
	4-Oct-22	0.0005	Not Analyzed	1.52	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.41	Not Analyzed	0.430	0.0000010	Not Analyzed	Not Analyzed	Not Analyzed	1.54
	17-May-23	0.0009	< 0.010	1.71	< 0.0003	< 0.005	< 0.010	< 0.050	0.41	0.007	0.430	0.0000008	< 0.050	< 0.005	< 0.0003	3.07
	24-Oct-23	< 0.0004	< 0.005	1.72	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	0.36	< 0.005	0.400	0.0000017	Not Analyzed	Not Analyzed	Not Analyzed	0.94

= Result from April 10, 2019 re-analysis; prior result from March 11, 2019 sample considered an atypical value (0.339 mg/L). April 2019 re-analysis result (< 0.050 mg/L) deemed representative and consistent with historical values for this well.
= Results from July 22, 2021 re-sampling and analysis of split samples; prior result from May 11, 2021 sample considered an atypical value (8.14 pCi/L). July 2021 re-sampling and split analysis results (0.57/0.71 pCi/L) deemed representative and consistent with historical values for this well.
= Results deemed invalid based on July 2021 re-sampling and split sample analysis. See Appendix A of the 2021 CCR Annual Groundwater Monitoring & Corrective Action Report (dated January 2022).
= Results addressed via peformance of Alternate Source Demonstration. See Appendix A of the 2020 CCR Annual Groundwater Monitoring & Corrective Action Report (dated January 2021).
= Results not deemed as SSL based on still relevant Alternate Source Demonstration (see Appendix A of 2020 Groundwater Monitoring Report [dated January 2021]) and findings from focused Geochemical Investigation (see Appendix A of this current Groundwater Monitoring Report [dated January 2023]).
= Samples from the May 10, 2022 event were lost by the laboratory. Values presented are associated with August 10, 2022 resampling.

Notes:
1. Cells with "<" are represented as non-detects. Values shown correspond to the laboratory reporting limit.
2. Background values based on statistical evaluation of initial eight rounds (Nov. 2015 through Aug. 2017) of groundwater sampling data for Well BR-14-UG.
3. As indicated, Groundwater Protection Standards are either published MCLs or risk-based Regional Screening Levels (RSLs). For constituents where calculated background exceeds either the MCL or RSL, the background value is used.

Figures

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	DESIGNED BY	DATE	OFFICE
631229736-B5	--	S. Z.-Forney	E. Schlegel	--	1/29/24	Pittsburgh, PA

LEGEND:

BR-20-DG (614.77) — CCR GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION MEASURED ON OCTOBER 23, 2023

ACTIVE AREAS

GROUNDWATER FLOW DIRECTION

REFERENCE:

GOOGLE AERIAL PHOTOGRAPH, DATED APRIL 2022.

SCALE

0 400 800 FEET

APTIM
500 Penn Center Boulevard,
Suite 1000
Pittsburgh, Pennsylvania 15235

DUNKIRK POWER LLC

FIGURE 1
CCR COMPLIANCE GROUNDWATER MONITORING WELL LOCATION MAP
DUNKIRK LANDFILL
DUNKIRK GENERATING STATION
DUNKIRK, NEW YORK

File: O:\PROJECT\NRG_DUNKIRK\631016538\631016538-B5.dwg
Plot Date/Time: Jan 29, 2024 - 1:18pm
Plotted By: Evan.Schlegel
Xref: Image: AERIAL_4-2022.jpg
photo_3.jpg
photo_5.jpg