



July 7, 2023

Mr. Mike Mizell
Big Rivers Electric Corporation
710 West 2nd Street, Owensboro, KY 42301

Re: 1st Half 2023 Remedy Selection Progress Report in accordance with 40 CFR §257.97
D.B. Wilson Station Phase II CCR Landfill in Centertown, Kentucky
Agency Interest ID#: 3319
Activity I.D. #: AIN20140001

Dear Mr. Mizell:

On April 17, 2015 the final rule for the regulation and management of Coal Combustion Residuals (CCR) was published by the United States Environmental Protection Agency (USEPA) in 40 Code of Federal Regulations (CFR) §257 and §261 (herein referred to as the Final Rule). The Final Rule applies to the CCR landfill known as the *Phase II Landfill* located at the Big Rivers Electric Corporation (BREC) D.B. Wilson Station. The Phase II Landfill is currently in Assessment groundwater monitoring per 40 CFR §257.95 with Appendix IV constituents detected at concentrations representing statistically significant levels (SSLs) above groundwater protection standards (GWPS). In response to the Appendix IV constituents detected at SSLs above GWPSs, BREC completed an Assessment of Corrective Measures Report in accordance with 40 CFR §257.96. BREC must select a remedy for groundwater impacts that meets the standards in 40 CFR §257.97(b) and, in accordance with 40 CFR §257.97(a) “*must prepare a semiannual report describing the progress in selecting and designing the remedy.*”

OVERVIEW

In October 2018, BREC installed five characterization monitoring wells located downgradient (MW-4D, MW-104, MW-105, and MW-110) or cross-gradient (MW-102) from the Phase I and Phase II Landfill in accordance with 40 CFR §257.95(g)(1) to further characterize the nature and extent of groundwater impacts. The closed Phase I Landfill is adjacent to the Phase II Landfill. The closed Phase I Landfill is regulated by a Special Waste permit issued by the Kentucky Department of Environmental Protection (KDEP), Division of Waste Management (DWM) under Title 401 of the Kentucky Administrative Regulations (KAR) Section 45 and is not regulated under the Final Rule.

In accordance with 40 CFR §257.96 of the Final Rule, BREC submitted the *Assessment of Corrective Measures Report* to their publicly-accessible CCR reporting website on June 14, 2019 that considered six potential corrective action alternatives to address groundwater impacts. The report stated that the assembly of these potential corrective measure alternatives was preliminary and could be revised following detailed analysis during the remedy selection process. To further evaluate each alternative further and potentially consider other corrective action technologies and/or alternatives, additional data collection was required.



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In December 2021 through January 2022, BREC installed six characterization monitoring wells (MW-10D, MW-105R, MW-111, MW-112, MW-113, and MW-114) located downgradient of the Phase I and Phase II Landfill locations. These additional characterization wells were installed in accordance with the DWM-approved Groundwater Assessment Plan (GWAP) for the Phase I Landfill under 401 KAR Chapter 45 Special Waste Section 160. However, the data generated during this groundwater assessment will be used to further support the evaluation of remedy selection for the groundwater impacts at the Phase II Landfill under the CCR Final Rule.

This report documents the progress made in the first half of 2023 (January 1, 2023 through June 30, 2023) in remedy selection. The activities accomplished during this period were focused on further characterization of groundwater at the Site.

SUMMARY OF 1ST HALF 2023 ACTIONS COMPLETED

The following activities have been completed to support evaluations required to select and design a groundwater remedy:

- A Groundwater Assessment Report (GWAR) was submitted on March 6, 2023 to the DWM reporting additional hydrogeologic data and semiannual groundwater quality results that included the six new characterization wells. Based on results of the GWAR, data gaps remain and additional data collection is recommended to improve the hydrogeologic characterization and nature and extent of groundwater. BREC is currently awaiting review of the GWAR by the DWM to support the development of a supplemental GWAP.
- The Spring (1st half) 2023 groundwater sampling event was completed in April 2023. This included the third groundwater sampling event for the six new characterization monitoring wells installed December 2021 through January 2022 in accordance with the Phase I Landfill GWAP.
- Groundwater analytical results from the Spring 2023 groundwater sampling event will be reported in the 2023 Annual Groundwater Monitoring and Corrective Action Report to be completed in January 2023.
- This *1st Half 2023 Semiannual Remedy Selection Progress Report* has been placed in the facility's operating record (40 CFR §257.105(h)(12)).
- Notification to the DWM of the availability of this *1st Half 2023 Semiannual Remedy Selection Progress Report* will be prepared (40 CFR §257.106(9)) and the report will be posted to BREC's publicly-accessible CCR reporting website (40 CFR §257.107(h)(9)).

CONCLUSION

Due to additional data collection needs to fill data gaps based on the results from the GWAR and the six newly installed characterization wells being sampled for only the third time in April 2023,



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continued semiannual groundwater monitoring will be performed and a supplemental GWAP will be developed to improve the hydrogeologic characterization and nature and extent of groundwater. The supplemental GWAP will be prepared following review of the GWAR by DWM to address any potential comments.

The next semiannual groundwater monitoring event under the assessment monitoring program is scheduled for Fall 2023. The data generated from continued groundwater monitoring will be used to further characterize the nature and extent of CCR constituents in groundwater and will support the development of a comprehensive conceptual site model needed to assess the potential need for additional data collection and evaluate the selection and design of an appropriate remedy for the Phase II Landfill groundwater impacts. Identifying the Final Rule Appendix IV constituent(s) of interest and defining the magnitude of remedial actions is needed to properly evaluate, select, and design an appropriate remedy in accordance with 40 CFR §257.97.

Once sufficient hydrogeologic data has been collected to effectively evaluate and develop a comprehensive remedy for the Phase II Landfill groundwater impacts, a public meeting will be held 30 days prior to formal remedy selection (40 CFR §257.96(e)), followed by a detailed Remedy Selection Report describing the remedy and proposed schedule for implementation.

The next semiannual remedy selection progress report documenting the activities performed from July 1, 2023 through December 31, 2023 for selecting the Phase II Landfill remedy is expected in January 2024.

Sincerely,

A handwritten signature in blue ink that reads "Chris Heglund". The signature is written in a cursive, flowing style.

Chris Heglund, PG
Project Manager