

MEMORANDUM

August 22, 2025
File No. 0129420

TO: Southern Indiana Gas and Electric Company

FROM: Haley & Aldrich, Inc.

SUBJECT: Semiannual Remedy Selection Progress Report Pursuant to 40 CFR §257.97(a)
F.B. Culley Generating Station – Former West Ash Pond

The Southern Indiana Gas and Electric Company (SIGECO) initiated an assessment of corrective measures for the former West Ash Pond (WAP) at the F.B. Culley Generating Station on October 30, 2020, in response to a statistically significant level (SSL) of Appendix IV constituents exceeding Groundwater Protection Standards (GWPS). Pursuant to Title 40 Code of Federal Regulations (40 CFR) §257.96(a), a demonstration for the need of a 60-day extension for the assessment of corrective measures was certified by a qualified professional engineer. The Corrective Measures Assessment (CMA) Report was completed and placed in the facility operating record on February 26, 2021.

Following completion of the CMA, SIGECO must, as soon as feasible, select a remedy that meets the standards listed in 40 CFR §257.97(b). Pursuant to 40 CFR §257.97(a), the owner or operator of a Coal Combustion Residual management unit that has completed a CMA for groundwater but has not selected a remedy shall prepare a semiannual report describing the progress in selecting and designing the remedy. This report summarizes activities completed during the period of February 26, 2025, through August 23, 2025. Progress in selecting a remedy is summarized below.

Summary of Actions Completed

The following actions have occurred during this reporting period:

- March 20, 2025 – Completed statistical analysis of November 2024 assessment monitoring laboratory analytical results received on December 28, 2024, to determine if statistically significant increases of Appendix III constituents were identified at the boundary of the Closed in Place unit and if SSLs of Appendix IV constituents are present downgradient of the former WAP at concentrations greater than the GWPS (consistent with 40 CFR §257.95).
- May 9, 2025 – Concluded the *Groundwater Flow Evaluation Work Plan*, approved by the Indiana Department of Environmental Management, to further refine understanding of groundwater flow direction, effects of Ohio River elevation on groundwater flow, and influence of nearby pumping wells.

- May 13 to 30, 2025 – Collected groundwater samples from monitoring wells at the former WAP for laboratory analysis in accordance with 40 CFR §257.95(b) and 40 CFR §257.95(d)(1). Groundwater elevations were measured in a synoptic round prior to sampling in accordance with 40 CFR §257.93(c).
- Evaluated groundwater measurements and analytical results using potentiometric surface maps, iso-concentration maps, and trend analysis to confirm the nature and extent of Appendix IV SSLs pursuant to 40 CFR §257.95(g) has been defined where access is available, and assessment of corrective measures findings remain appropriate.
- Continued evaluation of the nature and extent of Appendix IV SSLs as required by 40 CFR §257.95(g)(1). SIGECO began to develop a groundwater fate and transport model to evaluate the nature and extent of Appendix IV SSLs and potential for off-site migration as physical access to the adjacent property has not been authorized.

Planned Activities

Anticipated activities for the upcoming six months include the following:

- Further define the nature and extent of lithium and molybdenum in groundwater downgradient of the former WAP using groundwater fate and transport modeling and results from the *Groundwater Flow Evaluation Work Plan*.
- Conduct semiannual groundwater sampling in November 2025 consistent with 40 CFR §257.95(b) and (d)(1); and,
- Complete statistical analysis of the semiannual groundwater sampling results as required by 40 CFR §257.93(h)(2).

https://haleyaldrich.sharepoint.com/sites/VectrenCorporation/Shared Documents/0129420.Culley/Deliverables/West Ash Pond/3_SOR_Progress_Reports/2025-08 August/2025-0731-FBC_WAP_SemiAnnual_SOR_D1.docx