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## MEMORANDUM

23 August 2023  
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 – 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 30 October 2020 in response to a statistically significant level (SSL) of Appendix IV constituents exceeding Groundwater Protection Standards (GWPS). Pursuant to 40 Code of Federal Regulations (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 26 February 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 26 February 2023 thru 23 August 2023. Progress in selecting a remedy is summarized below.

### Summary of Actions Completed

The following actions have occurred during this reporting period:

- SIGECO is in communication with the adjacent property owner to the west of the former WAP (down-gradient) to pursue an off-site Right-of-Entry (ROE) access agreement;
- Completed semiannual groundwater sampling in May 2023 consistent with 40 CFR §257.95(b) and (d)(1);
- Performed surface water sampling as described in the *Work Plan for Surface Water Sampling at the F.B. Culley WAP* submitted to Indiana Department of Environmental Management in March 2023 and revised in July 2023. Five surface water samples were collected including one upstream and one downstream location. Three surface water samples were collected between the southern boundary of the former WAP and the Ohio River;

- Evaluated groundwater measurements and analytical results using potentiometric surface maps, isoconcentration maps, and trend analysis to confirm the nature and extent (N&E) of Appendix IV SSLs pursuant to 40 CFR § 257.95(g) has been defined (where possible) and assessment of corrective measures findings remain appropriate; and,
- Completed statistical testing to determine if Appendix III constituent statistically significant increases were identified at the boundary of the Closed in Place (CiP) unit and if Appendix IV constituent SSLs are present downgradient of the former WAP above GWPS (consistent with 40 CFR § 257.95).

Releases from the former WAP pre-date construction of the CiP unit; therefore, an intra-well statistical analysis is used to independently evaluate the CiP unit. Inter-well statistical analysis for assessment monitoring of the former operating unit continues.

## Planned Activities

Anticipated activities for the upcoming six months include the following:

- Conduct semiannual groundwater sampling in November 2023 consistent with 40 CFR § 257.95(b) and (d)(1);
- Obtain ROE access agreement from adjacent property owner west of the former WAP;
- After obtaining a ROE, implement an off-site N&E field investigation to determine if Appendix IV constituents extend off-site;
- Continue to evaluate groundwater flow conditions, groundwater/surface water interactions, the N&E of Appendix IV constituents greater than the GWPS, and the potential for off-site migration; and,
- Evaluate analytical data to quantify potential improvements to groundwater quality after pond closure and how those changes may affect the potential corrective measures.