

MEMORANDUM – Operating Record (40 CFR 257.105(h)(12))

September 14, 2023
File No. 0133274-013

TO: AES Indiana – Eagle Valley Generating Station

FROM: Haley & Aldrich, Inc.

SUBJECT: Semi-Annual Remedy Selection Progress Report Pursuant to 40 CFR §257.97(a)
Eagle Valley Generating Station - Ash Pond System

Indianapolis Power & Light Company d/b/a AES Indiana (AESI) initiated corrective measures for the Ash Pond System at the Eagle Valley Generating Station (EVGS) on April 15, 2019, in response to statistically significant levels (SSL) of Appendix IV constituents (arsenic, lithium and molybdenum) exceeding Groundwater Protection Standards (GWPS). Pursuant to 40 CFR §257.96(a), a demonstration of need for a 60-day extension for the assessment of corrective measures was completed on July 12, 2019. The Corrective Measures Assessment (CMA) Report was completed and placed in the facility operating record on September 13, 2019, and subsequently amended on October 11, 2019.

In accordance with the Federal CCR Rule, following completion of the CMA, AES Indiana must, as soon as feasible, select a remedy that meets the standards listed in 40 CFR §257.97(b). Pursuant to §257.97(a), the owner or operator of a Coal Combustion Residual (CCR) management unit that has completed a CMA for groundwater is required to prepare a semi-annual report describing the progress made in selecting and designing the remedy. This report documents activities conducted in support of selecting and designing a remedy during the period from March 14, 2023, through September 13, 2023. A summary of the progress in selecting a remedy is provided below.

SUMMARY OF ACTIONS COMPLETED

The following activities have been completed during this reporting period:

- Completed the statistical analysis of the November 2022 sampling results for the presence of Appendix IV constituents to be present at concentrations above GWPS.
- Continued Assessment Monitoring: Collected groundwater samples and evaluated the results of the April/May 2023 sampling event to ensure the reliability of the results. Final laboratory results were placed in the facility’s CCR operating record. The groundwater monitoring data for the April/May 2023 sampling event is being evaluated for statistically significant levels compared to GWPS. Any new constituents that exceed GWPS will be considered in selection of the final remedy.
- Three rounds of groundwater samples were collected from the supplemental monitoring wells (MW-3D, MW-12I, MW-12D, MW-26S, MW-26I, MW-26D) in March, May and July 2023 along with performing hydraulic conductivity testing in March 2023 to refine estimates of aquifer parameters.

- Efforts to determine the nature and extent (N&E) of the Appendix IV SSLs continued pursuant to § 257.95(g):
 - Groundwater samples were collected from the three (3) on-site N&E nested monitoring wells (MW-14, MW-15, MW-16) between April and May 2023;
 - Groundwater samples were collected from seven (7) off-site nested monitoring wells (MW-17 through MW-23) between April and May 2023 to define the lateral extent of Appendix IV constituents;
 - Completed hydraulic conductivity testing on nested monitoring wells (MW-24 and MW-25) in March 2023 to provide data to refine estimates of aquifer parameters and groundwater flow patterns;
 - The N&E groundwater analytical results will be used to supplement and enhance the evaluation of the extent of groundwater impacts, assessment of corrective measures, and selection of remedy. Groundwater characterization of the N&E monitoring wells is ongoing, as the results of each sampling event inform what additional steps, if any, are necessary to fully delineate the nature & extent of Appendix IV constituents.
- AESI submitted a revised Closure & Post Closure (C&PC) Plan for Ponds A, B, and C to the Indiana Department of Environmental Management (IDEM) in October 2022. The revised CPC Plan provided updates to the Groundwater Sampling and Analysis Plan, and additional information in response to inquiries submitted by IDEM and includes updated evaluation of ash in contact with groundwater and associated removal volume for regulated CCR units (Ponds A-C).
- IDEM requested additional information in April 2023 on the revised C&PC Plan that AESI submitted in October 2022. AESI provided initial responses to IDEM request in July 2023 and continues working with IDEM to provide additional information regarding the C&PC Plan for Ponds A, B and C.

PLANNED ACTIVITIES

Anticipated activities which will support CMA and selection of remedy for the upcoming six months include the following (subject to change):

- Collect supplemental soil and groundwater data from select N&E locations to further evaluate groundwater treatment technologies.
- Complete the statistical analysis of the April/May 2023 sampling event to evaluate groundwater for the presence of SSLs above GWPS downgradient of the Ash Pond System.
- Continue Assessment Monitoring by collecting groundwater samples in October 2023 from the existing CCR well network and the six (6) supplemental monitoring wells (MW-3D, MW-12I, MW-12D, MW-26S, MW-26I and MW-26D). The groundwater data will be evaluated for statistically significant levels compared to GWPS. Any new constituent that exceeds GWPS will be considered in selection of the final remedy.
- Continue efforts to further establish N&E on-site along the western property boundary which will support CMA and selection of remedy:
 - Collect groundwater samples from the two (2) supplemental N&E nested monitoring wells (MW-24 and MW-25), to provide analytical data to define the horizontal and vertical extent of Appendix IV constituents detected above GWPS.

- Collect groundwater samples from seven (7) off-site nested N&E monitoring wells (MW-17 through MW-23) to define the lateral extent of Appendix IV constituents.
- Evaluate the groundwater analytical data collected during the October 2023 semi-annual assessment monitoring sampling event that will include N&E monitoring wells.
- Incorporate the supplemental groundwater data into the groundwater flow and solute transport model and provide additional data to support the groundwater Site Conceptual Model (SCM).
- Complete the Nature and Extent Report which will provide a comprehensive summary of data evaluation and SCM.
- Continue to perform an engineering review of the potential CMA remedial alternatives. For these reviews, emphasis will be placed on understanding and reacting to impacts of newly gathered analytical results, identifying and evaluating applicability of emerging technologies and their impacts on the CMA and selection of remedy process.
- Estimate quantity of Appendix IV material released as required under 40 CFR §257.95(g)(1)(ii) and place in the facility's CCR operating record.
- Continue to work with IDEM to gain approval of C&PC Plan for Ponds A, B and C. Implementation of the Closure Plan (cap system installation) would reduce infiltration of precipitation to groundwater thereby isolating the source material.
- Begin preparation and schedule/hold a Public Meeting to discuss the results of the CMA in accordance with §257.96(e); and
- Provide a semi-annual progress report that summarizes AESI's progress and status regarding a selection of remedy.