

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

September 14, 2021  
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 (AES Indiana) 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 constitutes the fourth semi-annual remedy selection progress report and is comprised of activities conducted during the period of March 12, 2021 through September 13, 2021. 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 2020 sampling results for the presence of Appendix IV constituents to be present at concentrations above GWPS.
- Continued Assessment Monitoring: Evaluated the results of the May 2021 sampling event and conducted a statistical analysis of the November 2020 results to continue to evaluate any GWPS exceedances observed. Final laboratory results were placed in the facility’s CCR operating record. The groundwater monitoring data for the May 2021 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.
- 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 on-site N&E nested monitoring wells in May 2021;

- AES Indiana obtained access agreements from neighboring property owner and installed three (3) N&E nested monitoring wells on adjacent properties (south of the EVGS) in March 2021;
- Horizontal and vertical survey coordinates were established for the newly installed well clusters and hydraulic conductivity testing was performed to provide data to better understand aquifer characteristics and groundwater flow patterns; and
- Groundwater samples were collected from the three (3) off-site nested monitoring wells in April, May, July and August 2021 to confirm the reliability of the results and assess whether Appendix IV constituents have migrated off-site.

The 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.

- Pressure transducers were installed at selected nested monitoring well locations in June 2021, to obtain supplemental groundwater elevation data to refine the groundwater flow and solute transport model and provide additional data to support the groundwater conceptual site model (CSM).
- An aquifer pump test was performed in August 2021 to better understand/define the radius of influence and capture zone of the combined cycle gas turbine pumping system to support selection of the final remedy.
- Indiana Department of Environmental Management (IDEM) continued to review the Ash Pond System Closure Plan / Post Closure Plan. Public comment period ended in February 2021 and IDEM is evaluating comments received.

## PLANNED ACTIVITIES

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

- Complete the statistical analysis of the May 2021 sampling event to evaluate groundwater for the presence of SSLs above GWPS downgradient of the Ash Pond System.
- Continue Assessment Monitoring: Collect groundwater samples in November 2021 from the CCR well network. 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 south of the EVGS which will support CMA and selection of remedy:
  - Conduct meeting with adjacent property owners regarding activities completed to date consistent with § 257.95(g)(2) and discuss next steps related to the potential installation of three (3) additional N&E nested monitoring wells;
  - Install three (3) additional off-site N&E nested monitoring wells (shallow, intermediate, deep), to collect groundwater data to define the horizontal and vertical extent of Appendix IV constituents detected above GWPS; and
  - Evaluate the groundwater analytical data collected during the November 2021 semi-annual assessment monitoring sampling event that will include any new N&E monitoring wells.
- As appropriate, refine CSM and associated groundwater modeling.

- Continue to perform an engineering review of the three (3) potential CMA alternatives. For these reviews, emphases will be placed on understanding and reacting to impacts of newly gathered analytical results, identifying and researching applicability of emerging technologies and their impacts on the CMA and selection of remedy process.
- Continue permit applicability and risk assessment for CMA options including IDEM's review of CCGT discharge data.
- Respond to IDEM questions/comments on the Ash Pond System Closure Plan and review draft approval of closure plan.
- Anticipate receipt of IDEM approval of Ash Pond System Closure Plan / Post Closure Plan. Implementation of the Closure Plan (cap system installation) would reduce infiltration of precipitation to groundwater thereby isolating the source material.
- 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.
- Provide a semi-annual progress report that summarizes AES Indiana's progress and status regarding a selection of remedy.