

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

September 14, 2020
File No. 129342

TO: Indianapolis Power & Light Company

FROM: Haley & Aldrich, Inc.

SUBJECT: Semi-Annual Remedy Selection Progress Report Pursuant to 40 CFR §257.97(a)
Petersburg Generating Station - Ash Pond System and Type I Restricted Waste Landfill

The Indianapolis Power & Light Company (IPL) initiated corrective measures for the Ash Pond System and Type I Restricted Waste Landfill at the Petersburg Generating Station (PGS) on April 15, 2019 in response to a statistically significant level (SSL) of an Appendix IV constituent 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.

Following completion of the CMA, IPL 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 to prepare a semi-annual report describing the progress in selecting and designing the remedy. This report constitutes the second semi-annual remedy selection progress report and is comprised of activities during the period of March 14, 2020 through September 12, 2020. A summary of the progress in selecting a remedy is provided below.

SUMMARY OF ACTIONS COMPLETED

The following actions have been completed during this reporting period:

- Continued Assessment Monitoring: the results of the May 2020 sampling event and any GWPS exceedances. Final laboratory results were placed in the facility’s CCR operating record. The groundwater monitoring data is being evaluated for statistically significant exceedances and compared to GWPS. Any new parameters 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). IPL installed an additional nested N&E monitoring well (MW-20) along the White River to better define the lateral extent Appendix IV constituents. Groundwater samples were collected from the N&E monitoring wells in May and June 2020. The analytical results will be used to supplement and enhance the evaluation of the extent of groundwater impacts, assessment of corrective measures, and support selection of remedy. Groundwater characterization of the N&E monitoring wells is ongoing;

- Pressure transducers continued to be used/monitored for collection of groundwater elevations from select monitoring wells located around and within Pond A to provide additional data to support the groundwater conceptual site model (CSM);
- Porewater and groundwater samples were collected in April and August 2020 from the five (5) nested piezometers within the limits of Ash Pond A and analyzed to provide data to refine the understanding of the vertical groundwater flow characteristics and solute transport;
- Two nested piezometers and two staff gauges were installed adjacent to the discharge canal downgradient of the Ash Pond System. Surface water and groundwater measurements were obtained in May through August 2020 to evaluate the affect the discharge canal has on groundwater flow;
- Continued implementation of the approved Indiana Department of Environmental Management (IDEM) Ash Pond System Closure Plan / Post Closure Plan that includes cap system installation at Pond C to reduce infiltration of precipitation to groundwater thereby isolating the source material and dewatering activities at Pond A and Pond A’;
- Began evaluation of possible alternate source of SSLs as it relates to the CCR landfill which is focusing on the historical on-site coal mining practices. This information will support the selection of remedy.

PLANNED ACTIVITIES

Anticipated activities which will support CMA and selection of remedy for the upcoming six months include the following:

- Continue efforts to finalize N&E which will support CMA and selection of remedy:
 - Install an additional N&E nested monitoring wells along the White River to better define the lateral extent Appendix IV constituents;
 - Evaluate the groundwater analytical data collected during the November 2020 semi-annual assessment monitoring sampling event that will include any new N&E monitoring wells;
- Continue the use of pressure transducers for collection of groundwater elevations from select monitoring wells located around and within Pond A to provide additional data to support the CSM;
- Continue the ongoing landfill characterization efforts and install as required supplemental piezometers/wells and additional borings to better define the subsurface conditions immediately surrounding the landfill as it relates to the alternative source investigation, CMA and selection of remedy support;
- As appropriate, refine CSM and associated groundwater modeling;
- Continue to perform an engineering review of the five (5) 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 to perform closure activities at Pond C (cap system installation) and dewatering activities at Pond A and Pond A’;
- 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; and
- Provide a semi-annual progress report that summarizes IPL’s progress and status regarding a selection of remedy.