

December 12, 2024

SEMIANNUAL REMEDY SELECTION PROGRESS REPORT ASH POND NO. 2 COFFEEN POWER PLANT

The owner or operator of a coal combustion residuals (CCR) unit must prepare a semiannual report describing the progress in selecting and designing groundwater corrective action remedy and developing a corrective action plan.

This report is for activities occurring between July 9, 2024 and December 12, 2024 at Ash Pond No. 2 (AP2) at Coffeen Power Plant.

As stated in the notification letter dated August 7, 2024, a statistically significant level (SSL) of cobalt was identified during the previous assessment monitoring event completed during Quarter 1, 2024. Assessment monitoring was also completed at AP2 during Quarter 3, 2024 in accordance with 40 C.F.R. § 257.95 and SSL identification is pending (related notification due January 11, 2025). With the alternative source demonstration (ASD) for the cobalt SSL referenced below, and the lack of any other SSLs, further evaluation of corrective action under 40 C.F.R. § 257.97 is not warranted for AP2. Results from the most recent and future sampling events will be evaluated to determine if evaluation of corrective action should resume.

As stated in previous Semiannual Remedy Selection Progress Reports, a Corrective Measures Assessment (CMA) was completed for cobalt exceedances at AP2 on July 8, 2019 as required by 40 C.F.R. § 257.96. This CMA was revised on November 30, 2020 to address cobalt and lithium based on 2020 assessment monitoring results, to include additional information related to site geology/hydrogeology, and to focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) pertaining to potential groundwater corrective measures. Additional revisions were made to the CMA on January 6, 2023 to include an ASD for cobalt and additional site geology/hydrogeology information gained during site investigation activities in 2021 related to permitting required by Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.

The CMA indicated the source control measure for AP2 would be closure in place with a geomembrane cover system. Construction of the geomembrane cover system began in July of 2019 and was completed on November 17, 2020 in accordance with the Closure and Post Closure Care Plan approved by the Illinois Environmental Protection Agency (IEPA) on January 30, 2018.

An application for an operating permit required for AP2 by 35 I.A.C. § 845.230 was submitted to IEPA by October 31, 2021 and is pending approval. The operating permit application and related documents can be found on the publicly available CCR website: <https://www.luminant.com/ccr/illinois-ccr/>. Quarterly groundwater sampling for 35 I.A.C. § 845 compliance evaluation in accordance with 35 I.A.C. § 845.650 was initiated at AP2 during Quarter 2, 2023. Exceedances of groundwater protection standards established under 35 I.A.C. § 845 were determined and require corrective action through a permitting process administered by IEPA. Therefore, remedy selection will take into consideration compliance with both 40 C.F.R. § 257 and 35 I.A.C. § 845.

In accordance with 40 C.F.R. § 257.97, remedy selection is to be completed as soon as feasible following completion of the CMA. As required by 35 I.A.C. § 845.670, a corrective action plan that identifies the selected remedy must be submitted to IEPA within one year after completing the CMA required by 35 I.A.C. § 845.660. As stated in the previous Semiannual Remedy Selection Progress Report, the 35 I.A.C. § 845 CMA was submitted to IEPA on June 12, 2024. Activities currently ongoing in support of developing the corrective action plan include development of a corrective action alternatives analysis, human health and ecological risk assessment, and supporting technical documents. Accordingly, a public meeting will be held prior to selection of a remedy in accordance with 35 I.A.C. § 845.660(d) and a corrective action plan will be submitted in on or before June 12, 2025 that meets the requirements of both 40 C.F.R. § 257 and 35 I.A.C. § 845.