

March 5, 2024

SEMIANNUAL REMEDY SELECTION PROGRESS REPORT OLD WEST ASH POND (POND NO. 1 AND POND NO. 3) AND POLISHING POND HENNEPIN POWER PLANT

In accordance with Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.97(a), the owner or operator of a coal combustion residuals (CCR) unit must prepare a semiannual report describing the progress in selecting and designing a remedy for statistically significant levels (SSLs) of constituents listed in Appendix IV of 40 C.F.R. § 257 over the groundwater protection standards established in accordance with 40 C.F.R. § 257.95(h).

This report is for activities occurring between September 6, 2023, and March 5, 2024, at the Old West Ash Pond (Pond No. 1 and Pond No. 3) and Polishing Pond, collectively referred to as the Old West Ash Pond (OWAP), at Hennepin Power Plant.

As stated in the notification letter dated March 5, 2024, SSLs for total arsenic total cadmium, and total lithium were identified at the OWAP following Assessment Monitoring completed in Quarter 3 of 2023 in accordance with 40 C.F.R. § 257.95, consistent with previous reporting periods. An Alternative Source Demonstration (ASD) for the total cadmium SSL was prepared and submitted with related documentation to the OWAP operating record by the October 11, 2023 deadline and is being re-evaluated following the Quarter 3 2023 Assessment Monitoring event.

As stated in previous Semiannual Remedy Selection Progress Reports, a Corrective Measures Assessment (CMA) was completed for the OWAP on September 5, 2019, to address SSLs for total arsenic, total lithium, and total molybdenum (see related notification dated February 6, 2019), as required by 40 C.F.R. § 257.96. The CMA evaluated closure-in-place with a geomembrane cover system in accordance with the Closure and Post Closure Care Plan submitted to the Illinois Environmental Protection Agency (IEPA) in January 2018. IEPA approved the Closure and Post Closure Care Plan on June 19, 2018. Closure construction began in August of 2019 and was completed in November of 2020.

As stated in the September 5, 2020, Semiannual Remedy Selection Progress Report, existing groundwater and source water data were reviewed, as well as identification and collection of additional groundwater and source water samples to evaluate the feasibility of continued monitoring. These data indicate that site-specific conditions appear favorable for continued monitoring in combination with the completed closure referenced above.

Additional activities were completed during the reporting period. Bench scale testing, including characterization of the materials and batch adsorption tests to better understand natural attenuation mechanisms, rates, and aquifer capacity, were previously completed. Additional analysis of previously completed bench scale testing results is ongoing, including evaluating the reversibility of these constituents' attenuation mechanisms under varying site conditions. These activities are necessary to understand the natural attenuation mechanisms occurring at the site and their potential ability to reduce the aqueous concentrations of constituents with SSLs that do not have ASDs to below the applicable groundwater protection standards.

The Old West Ash Pond is located in the State of Illinois and is also subject to compliance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845, where it is referred to as the West Ash Pond System (WAPS). An application for an operating permit for the WAPS required by 35 I.A.C § 845.230 was submitted to the Illinois Environmental Protection Agency (IEPA) by October 31, 2021 and is pending approval. An evaluation of background groundwater quality was completed and presented in the operating permit application. The

operating permit application and related documents can be found on the company's publicly available CCR website: <https://www.luminant.com/ccr/illinois-ccr/>. Quarterly groundwater sampling for compliance evaluation in accordance with 35 I.A.C. § 845.640 was initiated at the WAPS 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 completed in accordance with 35 I.A.C. § 845.660. The CMA was initiated on December 10, 2023, and is anticipated to be completed by May 8, 2024 following submittal of a CMA extension request on December 11, 2023 and IEPA approval on December 12, 2023. It is anticipated that a corrective action plan will be submitted in 2025 that meets the requirements of both 40 C.F.R. § 257 and 35 I.A.C. § 845.