

March 11, 2021

RD MORROW GENERATING STATION - LANDFILL CCR UNIT FIRST SEMI-ANNUAL 2021 REMEDY SELECTION AND DESIGN PROGRESS REPORT

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) 257 Subpart D, Golder Associates Inc. has prepared this Semi-Annual Remedy Selection and Design Progress Report (Progress Report) for Cooperative Energy's RD Morrow Generating Station's CCR Landfill unit in accordance with § 257.97(a). The Progress Report was prepared to document activities conducted between September 1, 2020 and February 28, 2021. As required by the rules, this progress report describes the progress made in selecting and designing a remedy and future planned activities.

Summary of Work Conducted

- Sampled monitoring and delineation well for additional characterization.
- Site assessment and detection monitoring wells were sampled for Appendix III and the detected Appendix IV constituents, as part of the second semi-annual assessment monitoring conducted in September 2020.
- Conducted annual assessment monitoring sampling event from the Landfill Unit monitoring well network for Appendix IV constituents in February 2021.
- Perform geochemical assessment of groundwater characteristics.

Groundwater Conceptual Site Model (CSM) – the additional data collected since the issuance of the ACM, together with new data evaluation tools and interpretations allow the development of a more refined CSM. Routine monitoring has confirmed the potentiometric surface. Groundwater modeling has been conducted with September 2020 analytical data to further evaluate the capacity of the aquifer and determine the feasibility of monitored natural attenuation along with source control for the SSLs of molybdenum and lithium at MW-05.

- Source control (Landfill Closure and Capping): Construction activities are ongoing for landfill closure and capping as part of the source control efforts. Site Preparation and earthwork is ongoing to reroute landfill stormwater, achieve closure grades, prepare the subgrade for geomembrane installation, and establish perimeter access around the RD Morrow Landfill. The closure geosynthetics installation is ongoing and is anticipated to be completed in first half of 2021.

Planned Activities and Anticipated Schedule

Cooperative Energy will continue its data collection efforts as necessary in support of efforts to refine the CSM and to further evaluate the feasibility of each corrective measure proposed in the ACM report. Further analysis is necessary with source control measures in place. Preliminary trends show that the landfill closure project has begun to cause a reduction in constituents of concern. Cooperative Energy will continue monitoring trends and re-evaluate key site groundwater metrics such as the groundwater flow rate and constituent concentration. Once sufficient data becomes available to arrive at a focused number of corrective measures or a combination of corrective measures that would provide an effective groundwater remedy, necessary steps will be taken to implement a remedy for the site in accordance with 40 CFR § 257.98. The following activities are planned for the upcoming semi-annual period:

- Resample relevant monitoring and delineation wells for additional characterization. Multiple data sets will be needed to assess temporal variations in conditions.
- Continue to sample site monitoring wells for Appendix III and other Appendix IV constituents detected during assessment monitoring.
- Continue geochemical assessment of groundwater characteristics.
- CSM – Further development of the CSM with additional data after landfill closure is essential to the analysis of the appropriate remedy. These data will support the ongoing evaluation of potential groundwater remedies for the site.

This Cooperative Energy, RD Morrow Generating Station Progress Report, has been prepared in compliance with applicable requirements of the CCR Final Rule. References to the appropriate 40 CFR § 257.96 rules are incorporated throughout this document.

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