

## TECHNICAL MEMORANDUM

**DATE** October 11, 2021 **Project No.** 19121567

**TO** Joe Kutch, Team Leader - Environmental Compliance  
Northern Indiana Public Service Company LLC

**CC** Jeff Loewe (NIPSCO LLC), Joe Gormley, Danielle Sylvia Cofelice, Jim Peace, Krysta Cione

**FROM** Mark Haney **EMAIL** mhaney@golder.com

**RE:** **NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC  
R.M. SCHAHFER GENERATING STATION, CCR UNIT CONSISTING OF MSRB, MCWB AND DA  
CORRECTIVE MEASURES SELECTION OF REMEDY, SEMI-ANNUAL PROGRESS REPORT #21-02**

On behalf of Northern Indiana Public Service Company LLC (NIPSCO) and in conformance with 40 Code of Federal Regulations (CFR) §257.97(a), Golder Associates Inc. (Golder), *a member of WSP*, has prepared this semi-annual progress report for the NIPSCO R.M. Schahfer Generating Station (RMSGs or Site), 2723 E 1500 N Road, Wheatfield, Jasper County, Indiana. This report summarizes progress toward selection of a Corrective Measures remedy for three Coal Combustion Residuals (CCR) impoundments (the Material Storage Runoff Basin [MSRB], Metal Cleaning Waste Basin [MCWB], and Drying Area [DA]), collectively referred to as the Multi-Cell Unit (MCU). Specifically, this semi-annual progress report summarizes actions completed since the submittal of the fourth semi-annual progress report on April 9, 2021.

In April 2019, Golder prepared an Assessment of Corrective Measures (ACM) to address detections of Appendix IV parameters in groundwater downgradient of the MCU above the groundwater protection standards (GWPS). Specifically, the ACM addressed cobalt due to a detection at a Statistically Significant Level (SSL) in groundwater. In addition, the ACM addressed boron because of detections above the Indiana Department of Environmental Management (IDEM) 4 milligrams per liter (mg/l) groundwater screening level and based on information suggesting the United States Environmental Protection Agency (USEPA) is considering adding it to the Appendix IV list. The ACM was prepared in conformance with applicable requirements of 40 CFR §257.96 and was certified by a qualified Indiana-licensed professional engineer on April 19, 2019. Following certification, the ACM was placed in the facility operating record and NIPSCO posted it to their publicly accessible CCR website.

In November 2020, based upon informal feedback from USEPA officials regarding their interpretation of ACM content, Golder prepared an Addendum (hereinafter Addendum #1) to the 2019 ACM in accordance with the requirements of 40 CFR §257.96. Addendum #1 was certified by a qualified Indiana-licensed professional engineer on November 30, 2020. Following certification, the ACM was placed in the facility operating record and NIPSCO posted it to their publicly accessible CCR website. In July 2021, consistent with changes to the MCU closure design and resultant impacts on remedy alternatives, Golder prepared a second Addendum (hereinafter Addendum #2) to the 2020 ACM in accordance with the requirements of 40 CFR §257.96. Addendum #2 was certified by a qualified Indiana-licensed professional engineer on July 29, 2021. Following certification, the ACM was placed in the facility operating record and NIPSCO posted it to their publicly accessible CCR website. For the purposes of this progress report the initial ACM and all Addenda are collectively referred to simply as the ACM.

As discussed in the ACM, NIPSCO plans to close the MCU by removal in accordance with 40 CFR §257.102(c). NIPSCO initially submitted a Closure Application to IDEM in April 2019. On May 13, 2021, NIPSCO submitted a final Closure Application to IDEM that modified the closure design and provided supplemental information in response to IDEM review comments. The final Closure Application, which included a low permeability cap design, is currently under review by IDEM. The final Closure Application includes modifications to the closure approach and low permeability cap design that impacts the ACM findings and final selection of a groundwater corrective measure(s).

The ACM initially identified eight potential Corrective Measure alternatives to be considered for implementation following excavation and closure of the MCU. However, Golder determined that additional data and further evaluation were required to select a remedy from among these options. Concurrent with IDEM review of the Closure Application and further development by NIPSCO of the closure detailed design, Golder performed additional field investigations to collect Site-specific data and conducted analyses of recent and historical information. The following remedy selection-related activities have been performed in the past six months:

- From April 2021 through May 2021, NIPSCO LLC continued to refine the Closure Application/Design of the MCU in response to IDEM comments and submitted the final Closure Application on May 13, 2021.
- Following submittal of the final Closure Application and confirmation that IDEM was in general agreement with the modified cap design, Golder prepared the MCU Assessment of Corrective Measures - Addendum #2 to reevaluate the list of potential corrective measures identified in the ACM based on their compatibility with the modified cap design. ACM Addendum #2 revised and updated information provided in the predecessor documents and incorporated the low permeability cap design in all corrective measures alternatives identified in the ACM and Addendum #1, effectively eliminating four of the ACM alternatives from further consideration.
- From August through October 2021, Golder performed additional engineering evaluations of the four remaining alternatives taking into consideration the low permeability cap design and its impact on the selection of remedy for groundwater Corrective Measures.
- During the spring 2021, Golder collected groundwater samples from the monitoring well network and evaluated the resulting analytical data to confirm plume extent and stability. Golder sampled groundwater monitoring wells for CCR and monitored natural attenuation (MNA) parameters from April 14 to April 27, 2021.

Throughout the fall 2021 - spring 2022 timeframe, Golder will continue to collect and evaluate additional information and perform an engineering review of the potential Corrective Measures, consistent with timing and implications of the Closure Application IDEM review, NIPSCO LLC public meeting, and IDEM approval processes. For these reviews, Golder will place emphases on identifying critical data gaps, understanding and reacting to impacts of newly gathered information on previous assumptions and/or conclusions, identifying and researching applicability of emerging technologies, and monitoring changing conditions and future plans for the Site and their impacts on the remedy process. Golder will summarize these additional evaluations along with a summary NIPSCO LLC's progress toward selection of remedy for groundwater Corrective Measures at the MCU in the next semi-annual progress report.