TECHNICAL MEMORANDUM

DATE April 10, 2022 **Project No.** 21508844

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

CC Jeff Loewe (NIPSCO), Joe Gormley, Danielle Sylvia Cofelice, Jim Peace, Cody Johnson

FROM Mark Haney **EMAIL mark.haney@wsp.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 #22-01**

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 USA Inc., *a member of WSP,* (Golder) 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 fifth semi-annual progress report on October 11, 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) was 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. In March 2022, based on 1) feedback provided from USEPA to other utilities regarding Part A Demonstrations and

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interpretations about the applicability of certain proposed groundwater remedies, and 2) USEPA's lack of movement in regard to adding boron to the Appendix IV list, Golder began preparation of a third Addendum (hereinafter Addendum #3) to the previous ACM Addenda. ACM Addendum #3 was prepared in accordance with the requirements of 40 CFR §257.96. Although Addendum #3 refers to and, in part, relies on information used in the preparation of previous Addenda, it is a standalone document upon which the Selection of Remedy (SOR) process will be conducted. 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 what was intended to be a final Closure Application to IDEM that modified the closure design and provided supplemental information in response to IDEM review comments. This latest version of the Closure Application that included a low permeability cap design, was reviewed by IDEM, which in turn issued a request for additional information in March 2022. The previous and current versions of the Closure Application include modifications to the closure approach and low permeability cap design that impact the ACM findings and final selection of a groundwater corrective measure(s).

Earlier versions of 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 refine and select one or more potential remedies from among these options. Concurrent with IDEM's prior review of the earlier and latest version of the Closure Application and further development by NIPSCO of the closure detailed design, Golder performed additional evaluations of potential corrective measures alternatives. As noted, USEPA's stated interpretations to other utilities regarding the appropriateness of certain potential groundwater remedies was the impetus for preparation of ACM Addendum #3. The following remedy selection-related activities have been performed in the past six months:

- Upon receipt of an additional request from IDEM for further information regarding the most recent (i.e., May 2021) Closure Application, NIPSCO LLC is continuing to refine the Closure Application/Design of the MCU in response to IDEM comments. In addition, NIPSCO will be meeting with IDEM in April 2022 in an attempt to 1) better understand IDEM's request for additional information about the Closure Application, and 2) gain its expedited approval.
- Following further evaluation of remedy alternatives in response to USEPA actions at other CCR sites, Golder began and completed preparation of ACM Addendum #3. This addendum focuses the scope of the corrective action response to cobalt in groundwater, which is the only Appendix IV constituent found at an SSL outside the MCU. Boron, which is not an Appendix IV constituent, but had been considered in Addenda #1 and #2 as discussed above, was removed from the list of constituents of concern.
- During the Fall 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 Appendix III and IV parameters from September 15 to October 1, 2021.
- Golder began preliminary work on the draft Selection of Remedy report based on the results of ACM Addendum #3.

Throughout the spring – summer 2022 timeframe, Golder will continue to collect and evaluate additional information and perform, additional engineering evaluations of the alternatives identified in ACM Addendum #3 consistent with timing and implications of IDEM's Closure Application review and approval processes. 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.

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