

TECHNICAL MEMORANDUM

DATE October 9, 2020 **Project No.** 19121567

TO Joe Kutch, Team Leader Environmental Compliance
Northern Indiana Public Service Company (NIPSCO LLC)

CC Marc Okin (NIPSCO LLC), Joe Gormley, Danielle Sylvia Cofelice, Jim Peace

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 #20-02**

On behalf of Northern Indiana Public Service Company (NIPSCO LLC), Golder Associates Inc. (Golder) prepared a Coal Combustion Residuals (CCR) Assessment of Corrective Measures (ACM) for three impoundments, the Material Storage Runoff Basin (MSRB), the Metal Cleaning Waste Basin (MCWB), and the Drying Area (DA), collectively referred to as the CCR Unit. The CCR Unit is located at the NIPSCO LLC R.M. Schahfer Generating Station, 2723 E 1500 N Road, Wheatfield, Jasper County, Indiana (RMSGs or Site). The ACM, prepared in conformance with applicable requirements of 40 Code of Federal Regulations (CFR) §257.96, was certified by a qualified Indiana-licensed professional engineer April 19, 2019, following which it was placed in the facility operating record and posted to NIPSCO LLC's publicly-accessible CCR website. This semi-annual progress report summarizes actions completed since the submittal of the second semi-annual progress report on April 13, 2020.

As discussed in the ACM, NIPSCO LLC plans to close this CCR Unit by removal in accordance with 40 CFR §257.102(c). NIPSCO LLC submitted a Closure Application to the Indiana Department of Environmental Management (IDEM) in April 2019 and has since provided supplemental information in response to IDEM review comments. NIPSCO LLC continues to refine the Closure Application, which is currently under additional review by IDEM.

The ACM identified eight potential Corrective Measure alternatives to be considered for implementation following excavation and closure of the CCR Unit. 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 LLC of the closure detailed design, Golder performed additional field investigations to collect Site-specific data and conducting analyses of recent and historical information. The following remedy selection-related activities have been performed in the past six months:

- In June 2019, Golder installed two piezometers southeast of the CCR Unit to refine understanding of groundwater flow direction. Golder collected groundwater elevation data from all wells on Site in September and November 2019 and March and April 2020. In April 2020, Golder installed an additional three piezometers northwest of the CCR Unit and collected groundwater elevation data from these wells in May, July, August, and September 2020. Golder has used these data to refine groundwater flow maps in the near

vicinity of the CCR Unit. Golder will continue to collect groundwater surface elevation and groundwater quality data during succeeding monitoring events.

- Golder also set up and performed simulations using a groundwater model for the Site to help design the remedial alternatives. The groundwater model was used to estimate particle transport time, to determine appropriate extraction well spacing and withdrawal rate(s) for potential pump and treat alternatives, and to predict changes in groundwater flow conditions after closure.
- Golder began its evaluation of the eight potential Corrective Measure alternatives identified in the ACM for consideration following the excavation and closure of the CCR Unit. These evaluations included developing conceptual designs for each potential corrective measure alternative and then comparing the effectiveness of each alternatives based on their overall performance, reliability, ease of implementation, potential impacts of the remedy, time to complete the remedy, and institutional requirements.
- In September, Golder participated in a conference call with the closure design engineering firm to discuss several CCR Unit closure design (e.g., backfill and capping) and post-closure (e.g., stormwater runoff, detention, and dischargement) implications for construction and operation of potential Corrective Measures.

Throughout the fall 2020-spring 2021 timeframe, Golder will continue to collect and evaluate additional information and perform an engineering review of the eight potential Corrective Measures, consistent with timing and implications of the Closure Application IDEM review and 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. In conformance with applicable requirements of 40 CFR §257.97(a) Golder will provide an updated report semi-annually that summarizes NIPSCO LLC's progress and status regarding a selection of remedy.