

TECHNICAL MEMORANDUM

DATE October 16, 2019

Project No. 19121567

- TO Joe Kutch, CCR Program Manager Northern Indiana Public Service Company (NIPSCO)
- CC Marc Okin (NIPSCO), Joe Gormley, Danielle Sylvia, Jim Peace
- FROM Mark Haney

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RE: NORTHERN INDIANA PUBLIC SERVICE COMPANY R.M. SCHAHFER GENERATING STATION, CCR UNIT CONSISTING OF MSRB, MCWB AND DA CORRECTIVE MEASURES SELECTION OF REMEDY, SEMI-ANNUAL PROGRESS REPORT #19-01

On behalf of Northern Indiana Public Service Company (NIPSCO), 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 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's publicly-accessible CCR website.

As discussed in the ACM, NIPSCO plans to close this CCR Unit by removal in accordance with 40 CFR §257.102(c). NIPSCO submitted a Closure Application to the Indiana Department of Environmental Management (IDEM) in April 2019. The Closure Application is currently under review by IDEM.

The ACM identified eight potential Corrective Measures to be considered for implementation following excavation and closure of the CCR Unit. However, Golder identified that additional data and further evaluation are 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 is performing additional field investigations to collect Site-specific data. Specific assessments along with their objectives and status are listed below:

Supplemental assessment of the CCR Unit with emphasis on placement, location, thickness, total depth, and material characteristics of the CCR that will be managed during dewatering and excavation stages of the closure process. The investigation, which took place on top of both free standing water, as well as wet CCRs, required mobilization of specialized, limited-availability equipment with capabilities to access active surface impoundments. Golder performed this field evaluation in summer and fall 2019. These data also may be useful to address questions regarding source contribution to impacts identified in groundwater.

- Pumping tests to determine aquifer characteristics in the area of the CCR Unit including storage characteristics and hydraulic conductivity values, assess potential boundary conditions (e.g., effects of the perimeter slurry wall), and to support future groundwater modeling efforts. The pumping tests, which were completed in June 2019, included a single-well step-rate pumping test, a long-term constant-rate pumping test (approximately 24 hours), a recovery test, and groundwater level monitoring. Data evaluation should be completed in fall 2019. Ultimately, these data will be used in conjunction with other Site information to determine the feasibility of designing a groundwater extraction system to capture impacted groundwater downgradient of the CCR Unit, if needed.
- Installation of additional piezometers to refine understanding of groundwater flow direction. Groundwater flow has previously been identified and monitored regionally and locally at the Site. However, given factors such as the Site's relative size, proximity of the CCR Unit to other Site features, and the potential effects of slurry walls upon local flow characteristics, additional information is needed. In June 2019 Golder installed two piezometers southeast of the CCR Unit. In fall 2019 and during succeeding monitoring events, Golder will collect groundwater surface elevation data to help refine groundwater flow maps in the near vicinity of the CCR Unit.
- An assessment of the CCR Unit perimeter slurry wall. Preliminary results from the pumping tests indicate a section of the slurry wall may not impact flow to the degree previously thought. Golder personnel excavated shallow pits (using Hydro-Vac techniques) to locate and observe the slurry walls in May 2019. Additional excavations and borings are planned to further assess the slurry wall in fall 2019.

Throughout the fall 2019-spring 2020 timeframe, Golder will continue to perform an engineering review of the eight potential Corrective Measures. 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's progress and status regarding a selection of remedy.

https://golderassociates.sharepoint.com/sites/nipscoccrgwmonitoring/shared documents/r.m. schahfer generating station/reports/selection of remedy progess updates/2019-fall/rmsgs selection of remedy semi annual progress report 1.docx