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 Clearing 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 first semi-annual progress report on October 16, 2019.

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. 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 has determined 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 LLC of the closure detailed design, Golder is performing 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:

- Golder completed a field investigation and supplemental data analysis to further assess 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 in both free-standing water as well as wet and dry CCRs, required mobilization of specialized, limited-availability equipment with capabilities to access active surface impoundments. Golder completed the investigation in fall 2019 and the analysis of data in spring 2020.
Golder evaluated the results from the aquifer tests performed to determine aquifer characteristics in the vicinity 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 groundwater modeling efforts. Two individual tests were completed. The first, in June 2019, included the installation of a single extraction well and multiple piezometers hydraulically downgradient of the CCR Unit, and performance of a step-rate aquifer test, a long-term constant-rate aquifer test (approximately 24 hours), a recovery test, and groundwater level monitoring. A second test which included the installation of a single recovery well and multiple piezometers was completed within the Drying Area (inside the slurry walls) in November 2019. Ultimately, these data will be used in conjunction with other Site information to determine the feasibility of, need for, and design criteria of a groundwater extraction system to manage groundwater within or downgradient of the CCR Unit.

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 2020 and 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 data during succeeding monitoring events.

Golder completed an assessment of the CCR Unit perimeter slurry wall. Golder personnel excavated shallow pits (using Hydro-Vac techniques) to locate and observe slurry walls in May and June 2019 followed by additional test pits (using backhoe excavation and repair techniques) in November 2019. In total, 46 slurry wall assessment excavations were completed. Golder also advanced a soil boring within the slurry wall located south of the Drying Area in November 2019. Results were used to confirm the slurry walls’ presence and determine the location including the top elevation, the composition, and the current conditions of the slurry walls.

Golder also set up and began simulations using a groundwater model for the Site to help design the remedial alternatives. The groundwater model will be used to determine particle transport time, extraction well spacing and rate(s) of withdrawal for potential pump and treat alternatives, and to predict changes in groundwater flow conditions after closure.

Throughout the spring-fall 2020 timeframe, Golder will continue to collect and evaluate additional information and 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 LLC’s progress and status regarding a selection of remedy.