



February 15, 2024

Project No. 31406779

Joseph E. Kutch, Manager, Environmental Compliance

Northern Indiana Public Service Company LLC
2755 Raystone Drive
Valparaiso, IN 46383

**RE: NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC, R.M. SCHAFER
GENERATING STATION WHEATFIELD, INDIANA
CCR SURFACE IMPOUNDMENT NO ALTERNATIVE DISPOSAL CAPACITY
DOCUMENTATION – 2024 ANNUAL UPDATE
PURSUANT TO INDIANA ADMINISTRATIVE CODE 329 IAC 10-9-1**

Dear Mr. Kutch:

In February 2019 on behalf of Northern Indiana Public Service Company LLC (NIPSCO), Golder Associates USA Inc. (Golder), now WSP USA Inc. (WSP), prepared the coal combustion residuals (CCR) Surface Impoundment No Alternative Disposal Capacity Documentation (Documentation) pursuant to the Federal CCR Rule requirements at 40 CFR §257.103(b)(1) and corresponding state regulations under Indiana Administrative Code (IAC) 10-9-1 for the NIPSCO R. M. Schahfer Generating Station (RMSGs, Site) in Wheatfield, Indiana. The 2019 Documentation was prepared for then active CCR surface impoundments referred to as the Waste Disposal Area (WDA), Metal Cleaning Waste Basin (MCWB), and Material Storage Runoff Basin (MSRB), otherwise referred to as the CCR Units. Each of these unlined CCR Units failed to successfully demonstrate the groundwater separation (location restriction) standard of 40 CFR §257.60 and, lacking an extension as provided in 40 CFR §257.103(b)(1), were required to have ceased receipt of waste and begun the closure process by April 11, 2021.

As allowed by the applicable provisions of 40 CFR §257.103(b), NIPSCO intended to continue using the WDA, MCWB and MSRB to manage CCR and non-CCR waste streams until a planned shutdown of all coal-fired units in 2023 and closure of the impoundments. As part of the 2019 Documentation, Golder evaluated potential disposal options and found that there was no existing alternative disposal capacity on- or off-Site that could accept the flow being impounded in the RMSGs MSRB, MCWB, and WDA.

In early 2020, Golder reviewed the information included in the 2019 Documentation and 1) confirmed with NIPSCO that there had been no operational changes at RMSGs since the previous documentation was prepared and 2) verified that the wastewater flows evaluated in 2019 were still representative of the current operations at RMSGs. As such, there was still no existing alternative disposal capacity on- or off-Site that could accept the volume of flow being impounded daily in the MSRB, MCWB, and WDA. Golder prepared and certified summary information to this effect in the Documentation first annual update, dated February 2020.

Following the February 2020 annual update, NIPSCO began making operational changes at RMSGs in preparation for the permanent cessation of all coal-fired units in 2023, reducing both influent into and reliance on two of the CCR Units for management of waste streams. The operational changes made, and related activities

that were performed since the 2020 update, included 1) shutdown of two of RMSGS' four coal-fired boilers (Units 14 and 15); 2) completion of a wastewater piping re-direct project and thus cessation of discharge of CCR and non-CCR waste streams into the MCWB and MSRB in October 2020; and 3) submittal of the Closure Application for the MCWB, MSRB, and a third inactive CCR surface impoundment, the Drying Area, the three impoundments collectively called the Multi-Cell Unit (MCU), to IDEM which subsequently (March 2023) approved the Closure Plan. Thus, the WDA remained as the only operational, CCR Rule regulated surface impoundment accepting CCR waste streams. As of mid-2020, NIPSCO's plans were to continue operation of the WDA as a CCR surface impoundment through the cessation of all RMSGS coal-fired boilers in 2023 and complete closure activities no later than October 17, 2028.

On September 28, 2020, the U.S. Environmental Protection Agency (EPA) enacted new Federal CCR Rule regulations affecting the 40 CFR §257.103 alternative closure requirements, replacing the 40 CFR §257.103(b)(1) option NIPSCO had been pursuing with similar, but more substantial, requirements outlined in 40 CFR §257.103(f)(2). The new regulations applicable to NIPSCO's WDA impoundment near-term operation and longer-term closure strategy required a similar, yet more rigorous, evaluation of the availability of alternative on- or off-Site disposal capacity as options to the continued use of the existing surface impoundment. In accordance with the new regulatory requirements at 40 CFR §257.103(f)(2), NIPSCO performed this evaluation and submitted a Demonstration of Permanent Cessation of a Coal-Fired Boiler(s) by a Date Certain (hereinafter Demonstration) on October 30, 2020, followed by Demonstration Addendum #1 (Addendum #1) in November 2020. The Demonstration and Addendum #1, which anticipated the continuation of coal-fired generation and use of the WDA until 2023, are currently awaiting technical review by EPA. Following 2022 communications about RMSGS' critical role in electric generation baseload and peak demand needs of the Midcontinent Independent System Operator (MISO), the regional transmission organization (RTO) of which NIPSCO is a part, NIPSCO identified the need to extend coal-fired generation at RMSGS beyond the originally planned 2023 shutdown date. NIPSCO then prepared and submitted Demonstration Addendum #2 in August 2022, where it also awaits technical review by EPA. As discussed in Addendum #2, coal-fired generation, and production of CCR and associated waste streams will now continue until December 2025 and these and related post-generation waste streams must continue to be managed in the sole remaining CCR Rule-compliant surface impoundment (WDA) as there is no alternative capacity on- or off-Site. Consequent active operation of the WDA including discharge of boiler wash water associated with decommissioning is now planned to continue until 3Q 2026. Following post-shutdown boiler washdown activities and a second wastewater piping re-direct project, the WDA will cease receipt of all CCR and non-CCR waste streams by 3Q 2026, at which time closure activities will begin. The extension of WDA operations will not impact the implementation of closure activities, which will still be completed no later than October 17, 2028, as required by 40 CFR §257.103(f)(2). In furtherance of its closure objectives and timeline for the WDA, on December 22, 2023, NIPSCO submitted for IDEM review a final design application (i.e., Closure Plan). Although not addressed in this IDEM IAC 10-9-1 regulation-specific annual update, NIPSCO has similarly prepared annual updates in accordance with the Federal CCR Rule requirements at 40 CFR §257.103(f)(2)(x).

On behalf of NIPSCO in early 2021 in accordance with the requirements of 40 CFR §257.103(b)(1), Golder again evaluated NIPSCO operations and verified water flows to be consistent with those conditions as of October 2020, post the wastewater piping re-direct project. Based on the reevaluation, Golder prepared and certified summary information to this effect in an annual update on progress toward achieving alternative capacity on- or off-Site in the Documentation second annual update, dated April 2021.

On behalf of NIPSCO in 1Q 2022 in accordance with the requirements of 40 CFR §257.103(b)(1), Golder once again evaluated NIPSCO operations and verified water flows to be consistent with those conditions as of October 2021, post cessation of operations of coal-fired boiler Units 14 and 15, and as they existed in early 2021. Based on the reevaluation, Golder prepared and certified summary information in an annual update on progress toward achieving alternative capacity on- or off-Site in the Documentation third annual update, dated April 2022.

Although EPA enacted the new 40 CFR §257.103(f)(2) regulations which superseded and replaced 40 CFR §257.103(b)(1), IDEM, which previously adopted the Federal 257.103(b)(1) regulatory language within IAC 10-9-1, has yet to similarly adopt the Federal 40 CFR §257.103(f)(2) language. Therefore, on behalf of NIPSCO, and in accordance with the requirements of 40 CFR §257.103(b)(1) and corresponding IAC 10-9-1 regulations, as still applicable, WSP has performed an annual review of RMSGS CCR waste generation and management and NIPSCO's progress toward achieving alternative capacity on- or off-Site. As noted above, NIPSCO separately prepares and posts to its CCR publicly accessible website annual progress reports in accordance with 40 CFR §257.103(f)(2)(x).

This correspondence prepared pursuant to 329 IAC 10-9-1 presents the Documentation fifth annual update indicating the 1) continued lack of alternative capacity, and 2) progress toward closure of the coal-fired units. Relative to RMSGS and the WDA, it also provides status of related CCR surface impoundment closures.

Progress Toward Permanent Cessation of Coal-Fired Boiler Operations/Closure of Surface Impoundments

As of October 1, 2021, NIPSCO permanently shut down operations of Units 14 and 15, representing two of the four coal-fired boilers at RMSGS. Washdown operations have been completed on Unit 14 and washdown continues on Unit 15, both of these actions as a prelude to decommissioning. Remaining Units 17 and 18 continue to operate, with management of CCR and non-CCR waste streams produced from these Units being provided by the WDA. Cessation of operations of the two coal-fired boilers is consistent with overall Site retirement plans and on schedule with NIPSCO's revised planned permanent cessation of all coal-fired generation activities by end of Q4 2025, as outlined in the Demonstration and Addenda #1 and #2.

NIPSCO began closure of the MCU following IDEM's approval of the Closure Plan in March 2023. CCR removal and disposal in a secure CCR Rule-compliant landfill cell is nearing completion, following which backfill and emplacement of a low permeability cover system will be performed, with final closure construction estimated to be complete about September 2024.

NIPSCO is likewise making progress toward closure of the WDA. A final design featuring a clean closure approach with a closure-in-place contingency has been completed and a Closure Plan was submitted to IDEM for review and approval on December 22, 2023. NIPSCO conducted a meeting with IDEM on January 31, 2024 to discuss the closure approach(es).

Ongoing Need for Operation of the WDA

As evidenced by the recent shut down of two of its four coal-fired boilers, NIPSCO is progressing toward permanent cessation of all coal-fired generation activities at RMSGS. Units 17 and 18 continue to operate, generating substantial volumes of CCR and non-CCR waste streams as detailed in the Demonstration and discussed below. Thus, the need remains for existing capacity and continued operation of the WDA to meet both ongoing coal-fired generation and current and future decommissioning demands related to the four boilers.

Aside from ongoing operational and future decommissioning needs, continued availability of the WDA is also a pivotal component in the closure of three other inactive CCR Rule regulated surface impoundments referred to collectively as the MCU. A key facet of the IDEM-approved MCU Closure Plan closure by removal approach is the discharge of dewatering fluids to the WDA. As the only remaining operational CCR Rule regulated impoundment on-Site, discharge to the WDA is the only viable alternative for the management of high-volume dewatering effluent. NIPSCO's construction contractor has been and will continue to discharge dewatering fluids during source removal and initial stages of backfill placement operations, with completion in 2024. Completion of the MCU closure activities, shutdown of the remaining coal-fired boilers, and conclusion of decommissioning activities will reduce reliance on the WDA as a CCR and non-CCR waste management unit.

As designed and constructed, most of NIPSCO's wastewater and stormwater systems feature a network of common sumps which ultimately discharge to the WDA. Until such time as CCR Rule regulated waste streams are no longer being generated, separation of the various sumps and pipelines is impractical. Therefore, until cessation and decommissioning actions are completed, the WDA remains essential to the management of these high-volume waste streams. However, NIPSCO has already begun preparations for the eventuality of ceasing all discharge to the WDA in preparation for closure. WSP has been retained to evaluate options for separation and rerouting of sump and stormwater drain lines away from the WDA into alternative non-regulated (under the CCR Rule) receiving water bodies. Design, construction, testing, and startup of the new discharge system will be conducted on a timeline consistent with RMSGS' ongoing and final needs for the WDA.

Continued Lack of Alternative Capacity

At the time of preparation of this Report the measurable reduction in Site-wide generation of CCR and non-CCR waste streams resulting from these boiler shutdowns could not be definitively quantified due to the absence of flow metering capacity in individual feed and discharge lines. However, in determination of alternative capacity and reliance for the operation of the WDA, the combined estimated average daily waste stream flow of 5.04 MGD reported in the Demonstration (i.e., October 2020) from Units 14 and 15, has been removed from the combined total waste stream flow considered in this Report. Note that such an approach assumes an instantaneous and maximum waste stream flow reduction (and does not account for the compulsory boiler washdown flow from Units' decommissioning) and is, as a result, considered a conservative capacity demand-based approach to this update. Therefore, due to ongoing Site operations and maintenance activities (e.g., boiler room sump dewatering for both shut down and active Units, stormwater collection and management), volumes of multiple individual CCR and non-CCR effluent streams being discharged to the WDA are estimated to be between 0.34 MGD and 1.42 MGD, with a combined estimated daily flow of 4.1 MGD.

Consistent with the requirements of 40 CFR §257.103(b)(1) and 40 CFR §257.103(f)(2), each as applicable, and employing processes consistent with those used in the evaluation of alternative disposal capacity for the Demonstration, WSP, on behalf of NIPSCO, performed a reevaluation of its previous assessment. Based on NIPSCO's representations and WSP's review of current conditions, the continued lack of alternative capacity is supported by the following conclusions:

- No other existing on-Site impoundment system can accept partial or total flows of CCR waste streams that are currently discharging into the WDA
- No existing transport conduit nor alternative disposal capacity is available for CCR and non-CCR waste streams in the existing on-Site wastewater treatment plant (WWTP)

- No existing off-loading or conveyance piping infrastructure to support on- or off-Site alternative disposal of CCR or non-CCR waste streams is in place and, as a practical matter, commercial tanker truck capacity for individual waste streams of between 0.34 and 1.42 MGD, up to a combined daily maximum volume of up to 4.1 MGD, is not possible to dependably source considering equipment and driver availability, impairments due to seasonal weather conditions, etc.
- An employee and public health and safety risk associated with off-Site disposal would result due to the additional truck traffic both on-Site and on the public roads as well as an increased carbon footprint with added truck traffic
- An increased risk of release that could harm the environment would result each time the wastewater is handled (i.e., pumped/loaded for off-Site transport, unloaded at off-Site receiving facilities)

NIPSCO previously evaluated the feasibility of constructing new alternative CCR and non-CCR waste management options on-Site, even though RMSGS will cease all coal-fired generation in 2025. As in 2020 and confirmed in 2022 (Demonstration Addendum 2), due to Site-specific factors (e.g., space limitations, shallow depth to groundwater and thus the inability to reasonably achieve the 40 CFR §257.60(a) five-foot separation from the upper limit of the uppermost aquifer), permitting and/or regulatory hurdles, supply chain-related materials and labor shortages, and building timeframes, construction of new alternative management facilities is infeasible.

Based on current operating conditions and an updated evaluation regarding alternative disposal capacity, WSP concludes that no viable alternative to continued use of the WDA currently exists.

Conclusion

WSP has prepared this report to provide documentation pursuant to 329 IAC 10-9-1, as still applicable, that provides an annual update to the existing alternative disposal capacity on- or off-Site, without consideration of increase in costs or inconvenience to NIPSCO. The Report documents a) the continued lack of alternative capacity on-Site and off-Site, and b) NIPSCO's progress toward the closure of the RMSGS surface impoundment referred to as the WDA. NIPSCO currently anticipates no delays in the 2Q 2026 cease receipt date, or the final closure date of September 2028 as outlined in the Demonstration and Addenda #1 and #2.

A Statement of Certification is included in attached Exhibit A. It is WSP's opinion that the information contained herein is true, accurate and has been prepared in accordance with good engineering practices and that the documentation provided, in accordance with 329 IAC 10-9-1, supports that there is no existing alternative disposal capacity on- or off-Site that could accept the flow currently being impounded in the WDA at RMSGS.

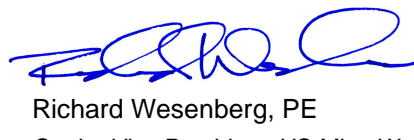
Sincerely,

WSP USA INC.



Mark Haney

Senior Vice President, Sr Technical Principal



Richard Wesenberg, PE

Senior Vice President, US Mine Waste District Leader

MH/RW/bjb

Attachments: Exhibit A – Statement of Certification



Northern Indiana Public Service Company LLC (NIPSCO) R.M. Schahfer Generating Station (RMSGs)
Wheatfield, Jasper County, Indiana
Waste Disposal Area

STATEMENT OF CERTIFICATION

NIPSCO RMSGs WASTE DISPOSAL AREA

**DOCUMENTATION FOR NO ALTERNATIVE DISPOSAL CAPACITY FOR EXISTING CCR SURFACE
IMPOUNDMENTS – 2024 ANNUAL UPDATE**

Indiana Administrative Code, 329 IAC 10-9-1

WSP USA Inc. (WSP) understands that following 2022 communications about its R. M. Schahfer Generating Station's (RMSGs', Site's) critical role in electric generation baseload and peak demand needs of the Midcontinent Independent System Operator (MISO), the regional transmission organization (RTO) of which Northern Indiana Public Service Company LLC (NIPSCO) is a part, NIPSCO identified the need to extend coal-fired generation at RMSGs beyond the originally planned 2023 shutdown date. NIPSCO intends to continue using coal-fired Units 17 and 18 at RMSGs with a revised planned permanent cessation of all coal-fired generation activities by end of Q4 2025. Until then, Units 17 and 18's coal-fired boilers will continue to generate coal combustion residuals (CCR) waste streams that, in compliance with the conditions of 329 IAC 10-9-1, can be managed in existing on-Site CCR impoundments. The MSRB and MCWB impoundments, previously addressed in a 2019 Documentation and subsequent annual updates, are no longer in active service, ceased receipt of CCR waste streams in October 2020, are undergoing closure by removal construction activities in accordance with a NIPSCO Closure Plan approved by IDEM March 17, 2023, and are expected to complete closure September 2024. The WDA is the only remaining surface impoundment at RMSGs that is regulated as a CCR surface impoundment and continues to accept CCR waste streams. NIPSCO submitted a Closure Plan to IDEM on IDEM on December 22, 2023. The WDA will continue to operate as a CCR surface impoundment through the cessation of all RMSGs coal-fired boilers in 2025 and will complete closure activities no later than October 17, 2028.

I, Richard Wesenberg, certify that I have personally examined and am familiar with the applicable provisions of Indiana Administrative Code, 329 IAC 10-9-1 and with the information submitted in the NIPSCO RMSGs CCR Surface Impoundment No Alternative Disposal Capacity Documentation – 2024 Annual Update, prepared by WSP USA Inc., dated February 15, 2024. I believe that the information contained therein is true, accurate and has been prepared in accordance with good engineering practices and that the documentation provided in accordance with 329 IAC 10-9-1 supports that there continues to be no existing alternative disposal capacity on- or off-Site that could accept the flow currently being impounded in the WDA at RMSGs.

Richard A. Wesenberg, PE
Senior VP, Director and Senior Technical Principal
Registered Professional Engineer
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