



REPORT

Northern Indiana Public Service Company Michigan City Generating Station Primary Settling Pond Number 2 *2022 Annual RCRA CCR Unit Inspection Report*

Submitted to:

Northern Indiana Public Service Company LLC (NIPSCO)

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Submitted by:


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1.0 INTRODUCTION

Northern Indiana Public Service Company LLC (NIPSCO) retained Golder Associates USA Inc., a member of WSP (Golder), to perform an annual inspection of the Primary Settling Pond Number 2 (Primary 2), an inactive CCR surface impoundment located at the Michigan City Generating Station (MCGS, Site) located at 101 Wabash Street, Michigan City, La Porte County, Indiana. The United States Environmental Protection Agency (USEPA) promulgated the 40 Code of Federal Regulations (CFR) Part 257, “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule” (CCR Rule) on April 17, 2015, with an effective date of October 19, 2015. The Rule requires owners or operators of existing CCR surface impoundments to have those units inspected on an annual basis by a qualified professional engineer in accordance with 40 CFR 257.83(b)(1). The annual qualified professional engineer inspections are required to be completed and the results documented in inspection reports (per 40 CFR 257.83(b)(2)) for CCR surface impoundments.

NIPSCO has been planning final closure-by-removal of Primary 2 since 2019. Following the July 2019 Primary 2 Inspection Report, NIPSCO anticipated closure of Primary 2 in 2020 (annual inspection would no longer be required once closed). However, due to Indiana Department of Environmental Management (IDEM) Closure Application review delays, additional comments from environmental non-government organizations (eNGOs), and COVID-19 site access/remote work requirements, NIPSCO did not complete the 2020 and 2021 annual inspections. However, Primary 2 ceased receipt of CCR, initiated closure, and has not impounded water since the 2019 annual inspection. NIPSCO is currently overseeing the closure of Primary 2 and the other CCR impoundments.

The CCR Rule establishes national minimum criteria and CCR management obligations for existing, new, and lateral expansions of CCR disposal units. One of the new obligations pertains to inspections, specifically; CCR unit owners/operators must initiate the following activities:

- Every seven-day inspections and every 30-day instrument monitoring of CCR Units by October 19, 2015; and
- Annual inspections of CCR units.

Primary 2 is an above grade surface impoundment that is not currently regulated by the Indiana Department of Water Dam Regulations (IDOW). The inspection was conducted to comply with §257.83 of the CCR Rule.

Per 40 CFR 257.83(b)(1), Golder reviewed available information regarding the status and condition of the inactive CCR unit and performed an onsite visual inspection on June 16, 2022. The objectives of the inspection included the following:

- Review of Operational Records (as applicable, see Section 3):
 - Design and construction information
 - Results of previous structural stability assessments
 - Results of previous annual inspections
- Perform a visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures.

- Perform a visual inspection of hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

In accordance with §257.83(b)(2), a qualified professional engineer prepared this inspection report to document the points listed above, and identify the following conditions, if applicable:

- Any changes in geometry of the CCR surface impoundment since the previous annual inspection.
- The location and type of existing instrumentation and the maximum recorded readings for each instrument since the previous annual inspection.
- The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection.
- The storage capacity of the impounding structure at the time of inspection.
- The approximate volume of the impounded water and CCR at the time of inspection.
- Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.
- Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

2.0 FACILITY DESCRIPTION

Sargent and Lundy Engineers (S&L) of Chicago, Illinois designed Primary 2 in 1972, which was put into service in 1973 and has been continuously owned and operated by NIPSCO to the present time. Primary 2 is formed by an above grade embankment that is approximately 14 feet high on the outside slope and approximately 19 feet high on the inside slope. Both the interior and exterior slopes are 2.5 horizontal to 1 vertical. The crest of the embankment is approximately 15 to 21 feet wide and is at an approximate elevation (El.) of 609 feet above mean sea level (ft-amsl).

The contractor who built Primary 2 is not known. NIPSCO provided Golder historical geotechnical data from hydrogeologic and geotechnical investigation reports completed at the site by others. Drawings and numerous boring logs were available from the initial 1970s facility design/construction. Golder also completed a geotechnical investigation and embankment stability analyses in 2012.

Primary 2 is inactive and currently receives no water from the plant. The above ground steel sluice lines that previously discharged into Primary 2 have been cut and removed in preparation for the ongoing closure activities of Primary 2. There is one inactive concrete discharge structure in Primary 2 that has been removed as part of the 2022 pond closure project.

3.0 BACKGROUND AND DOCUMENT REVIEW SUMMARY

The existing reports reviewed for this assessment are summarized below.

Table 1: Summary of Background Document Review

Document	Date	Author
Various construction drawings	1972	Sargent & Lundy Engineers (S&L)
Draft Round 10 Dam Assessment Report, NIPSCO Michigan City Generation Station, Coal Ash Impoundments	March 2012	GZA GeoEnvironmental, Inc. (GZA) for the USEPA
Final Report – Summary of Hydraulic Evaluation of Impoundments, Technical Memorandum, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	August 2012	Golder Associates Inc.
2012 Geotechnical Investigation and Embankment Stability Analyses, NIPSCO Michigan City Generating Station, Michigan City, Indiana	August 2012	Golder Associates Inc.
2017 Initial Annual RCRA CCR Unit Inspection Report Primary Basin Number 2 – Surface Impoundment, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	July 2017	Golder Associates Inc.
CCR Surface Impoundment - Primary 2 Inflow Design Flood Control System Plan, NIPSCO Michigan City Generating Station	April 2018	Golder Associates Inc.
Weekly Inspections, Primary Settling Pond #2, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	July 2017 – July 2022	NIPSCO
2018 Annual RCRA CCR Unit Inspection Report Primary Basin Number 2 – Surface Impoundment, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	June 2018	Golder Associates Inc.
2019 Annual RCRA CCR Unit Inspection Report Primary Basin Number 2 – Surface Impoundment, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	July 2019	Golder Associates Inc.

4.0 2022 VISUAL INSPECTION

John Puls, P.E. of Golder performed the 2022 onsite Primary 2 inspection on June 16, 2022. Mr. Jeff Neumeier, NIPSCO MCGS Environmental Coordinator accompanied Mr. Puls during the Site inspection.

The visual inspection provides the following information as stipulated in 40 CFR 257.83(b)(2):

- Any changes in geometry of the CCR surface impoundment since the previous annual inspection.
 - There were no changes in the overall geometry of the Primary 2 since the last inspection. Initial CCR construction activities associated with the pond closure were ongoing at the time of the inspection.

- The location and type of existing instrumentation and the maximum recorded readings for each instrument since the previous annual inspection.
 - There is currently no instrumentation in place designed to monitor for the structural stability of the Primary 2.
- The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection.
 - Maximum: approximately 603 feet above mean sea level (from NIPSCO)
 - Minimum: approximately 591 feet above mean sea level (from NIPSCO, pond has been mostly dewatered)
 - Present Depth: no standing water was observed (based on visual observation on June 16, 2022, Primary 2 is no longer receiving water from the station and is dry except for occasional rain events)
- The storage capacity of the impounding structure at the time of inspection.
 - Approximately 70,260 cubic yards (CY), based on previous inspection report information (GZA, 2012) and confirmed by NIPSCO.
- The approximate volume of the impounded water and CCR at the time of inspection.
 - Impounded water = approximately 5,000 gallons of interstitial water (provided by NIPSCO)
 - CCR = approximately 10,000 cubic yards (provided by NIPSCO, no change from 2019 report)
- Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.
 - None observed.
- Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.
 - None observed.

Based on a review of the historical reports listed in Table 1 and conditions noted during the annual inspection on June 16, 2022, Primary Settling Pond No. 2 is in acceptable condition.

Golder did not observe structural weaknesses or safety issues within the upstream, downstream, crest or hydraulic structures of Primary 2. Based on visual observations made on June 16, 2022, there were no conditions visually identified that would likely impact the operation of Primary 2.

5.0 CLOSING

This report has been prepared in general accordance with normally accepted civil engineering practices to fulfill the reporting requirements in accordance with 40 CFR 257.83(b). Based on our review of the information provided by NIPSCO and on Golder's on-Site visual inspection, the overall condition of Primary 2 is acceptable.

Golder's assessment is limited to the information provided to us by NIPSCO and to the features that could be visually inspected in a safe manner. Golder cannot attest to the condition of subsurface or submerged structures.

Signature Page

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