



**REPORT**

**Northern Indiana Public Service Company  
Michigan City Generating Station  
Primary Settling Pond Number 2  
*2023 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 WSP USA Inc. (WSP), 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. As of the May 2023, CCR has been removed from Primary 2, has been backfilled with compacted sand with a clay cover, and graded to promote drainage.

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), WSP reviewed available information regarding the status and condition of the inactive CCR unit and performed an onsite visual inspection on May 2, 2023. 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 historically 19 feet high on the inside slope. The inside slope is currently 15 feet high due to CCR removal and backfill activities. The exterior slopes are 2.5 horizontal to 1 vertical with 3.0 horizontal to 1 vertical slopes on interior slopes. 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 WSP 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 Associates Inc. (now WSP USA Inc.) 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 pond closure project.

As of May 2023, closure of Primary 2 was substantially complete including CCR removal and placement of compacted backfill and a clay cover system graded to promote drainage. A 30-inch diameter HDPE storm drain pipe and catch basins have also been installed at the northern toe of Primary 2 to facilitate stormwater drainage from Primary 2. Stormwater drains through the 30-inch HDPE pipes and discharges to the Final Pond.

### 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.
2022 Annual RCRA CCR Unit Inspection Report Primary Basin Number 2 – Surface Impoundment, NIPSCO, Michigan City Generating Station, Michigan City, Indiana	July 2022	Golder Associates Inc.

### 4.0 2023 VISUAL INSPECTION

John Puls, P.E. of WSP performed the 2023 onsite Primary 2 inspection on May, 2 2023.

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 outer perimeter berm geometry of Primary 2 since the last inspection. CCR has been removed from Primary 2 and backfilled with compacted sand and a clay cover to promote drainage from the pond. A 30-inch diameter drainage pipe has been installed through the west and east berms and along the north toe of Primary 2 for stormwater drainage. Topsoil will be placed and seeded to complete the closure of Primary two by the end of May 2023.
- 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.
  - The pond is no longer capable of impounding water due to the installation of stormwater drainage features as part of the pond closure
- The storage capacity of the impounding structure at the time of inspection.
  - Primary 2 no longer provides storage capacity as stormwater drainage features have been installed as part of the pond closure
- The approximate volume of the impounded water and CCR at the time of inspection.
  - Impounded water = no water is impounded as a result of the pond closure.
  - CCR = CCR has been removed as part of the pond closure
- 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 May 2, 2023, Primary Settling Pond No. 2 is in acceptable condition.

WSP 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 May 2, 2023, 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 WSP's on-Site visual inspection, the overall condition of Primary 2 is acceptable. WSP'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. WSP cannot attest to the condition of subsurface structures.

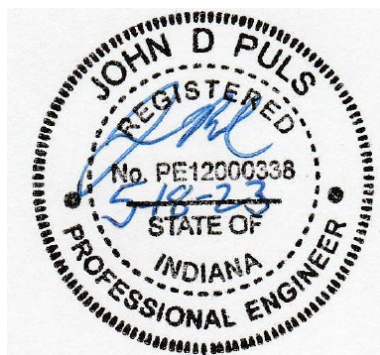


# Signature Page

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