2018 INSPECTION REPORT

NORTHERN INDIANA PUBLIC SERVICE COMPANY

R.M. SCHAHFER GENERATING STATION

Third Annual RCRA CCR Unit Inspection Report – January 2018

RESTRICTED WASTE TYPE I LANDFILL

OPERATING PERMIT NUMBER 37-01

Submitted To: Northern Indiana Public Service Company (NIPSCO)
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Project No. 1789496.0001

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1.0 INTRODUCTION

The United States Environmental Protection Agency (EPA) promulgated the Resource Conservation and Recovery Act (RCRA) Coal Combustion Residuals (CCR) Rule (Rule) on April 17, 2015, with an effective date of October 19, 2015. The Rule requires owners or operators of existing CCR landfills to have those units inspected on an annual basis by a qualified professional engineer in accordance with 40 CFR 257.84(b)(1). The annual qualified professional engineer inspections are required to be completed and the results documented in inspection reports (per 40 CFR 257.84(b)(2)) for CCR landfills. Golder Associates Inc. (Golder) was retained by Northern Indiana Public Service Company (NIPSCO) to perform the third annual inspection of the Restricted Waste Site Type I Landfill, permitted by the Indiana Department of Environmental Management (IDEM), per Permit Number 37-01, expiration date October 1, 2019, a CCR landfill located at the R.M. Schahfer Generating Station (Site).

The CCR Rule establishes national minimum criteria and new 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:

- weekly inspections and monthly instrument monitoring of CCR Units by October 19, 2015; and
- annual inspections of CCR units by January 18, 2016.

This report presents the results of the third annual inspection of the CCR Landfill unit at the NIPSCO R.M. Schahfer Generating Station (RMSGS), located in Wheatfield, Jasper County, Indiana. The inspection was conducted to comply with §257.84 of the CCR Rule.

Per 40 CFR 257.84(b)(1), Golder reviewed available information regarding the status and condition of the CCR unit and performed an onsite visual inspection which was conducted on October 18, 2017. 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.
- A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

In accordance with §257.84(b)(2), this inspection report has been prepared by a qualified professional engineer documenting the operational records review, visual inspection, and identifying the following since the previous annual inspection:

- Any changes in geometry of the CCR Landfill since the previous annual inspection.
- The approximate volume of CCR contained in the CCR unit at the time of the 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.
- Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

2.0 FACILITY DESCRIPTION

NIPSCO received an operating permit from IDEM to operate a Type I, Restricted Waste Landfill (RWS I) at RMSGS in January 1984 (Operating Permit 37-1). The active portions of the CCR Landfill take dry fly ash from the RMSGS Units, Michigan City Generating Station Units, and the Baily Generating Station Units. The landfill is located east of the generating station and has a total permitted area (closed, active, and future) of waste placement of approximately 210 acres. The landfill footprint is divided into seven phases. Phases I, II, III, and IV were closed prior to the effective date of the CCR Rule. Phase V is lined and has active and closed portions, and Phase VI is lined and currently active. Phase VII is not yet constructed. Phase V and Phase VI have a soil/geosynthetics floor liner with a 3 horizontal to 1 vertical (3H:1V) containment berm with a crest elevation of approximately 667 feet above mean sea level (msl). Phase VII is a permitted, but unconstructed area of the CCR Landfill. The 3H:1V containment berm is currently approximately 13,000 feet long, measured along the crest. The maximum height of the closed portion of the landfill is approximately 733 feet msl

NIPSCO has determined that Phases V and VI of the landfill are subject to the CCR Rule. As such, this annual inspection pertains to Phases V and VI. Phase V is an approximately 18-acre phase located in the southwestern corner of the landfill footprint. At the writing of this report, Phase V has nearly reached capacity and the southern and western portion of Phase V was closed in 2017. Phase VI is an approximately 15-acre phase located directly to the north of Phase V. At the writing of this report, waste placement activities were occurring within Phase VI.

3.0 BACKGROUND AND DOCUMENT REVIEW SUMMARY

The existing reports reviewed for this assessment are summarized in Table 1 below.

Table 1: Summary of Background Document Review

Document	Date	Author
NIPSCO Phase III – FGD/Fly Ash Landfill Construction, R.M. Schahfer Generating Station, Wheatfield, Indiana, Contract Drawings	April 12, 1996	Burns & McDonnell
NIPSCO Phase I – FGD/Fly Ash Landfill Construction, R.M. Schahfer Generating Station, Wheatfield, Indiana, Phase I Landfill Reclosure, Intermediate Grading Plan	November 6, 1998	Burns & McDonnell
NIPSCO Phase I – FGD/Fly Ash Landfill Construction, R.M. Schahfer Generating Station, Wheatfield, Indiana, Phase I Landfill Reclosure, Details	November 23, 1998	Burns & McDonnell
NIPSCO Phase I – FGD/Fly Ash Landfill Construction, R.M. Schahfer Generating Station, Wheatfield, Indiana, Phase I Landfill Reclosure, Final Grading Plan	January 12, 1999	Burns & McDonnell
NIPSCO Phase IV – Fly Ash Landfill Closure, R.M. Schahfer Generating Station, Wheatfield, Indiana	April 10, 2013	Burns & McDonnell
NIPSCO R.M. Schahfer Generating Station Specification. Front End Specifications for Phase IV Fly Ash Landfill Closure Construction Quality Assurance (CQA) (Includes CQA Plan)	April 16, 2013	Burns & McDonnell
NIPSCO Phase VI – Fly Ash Landfill Construction Contract – Record Drawings, R.M. Schahfer Generating Station, Wheatfield, Indiana	November 25, 2014	Sargent & Lundy
Northern Indiana Public Service Company R.M. Schahfer Generating Station – First Annual RCRA CCR Unit Inspection Report – January 2016 - Restricted Waste Type I Landfill - Operating Permit Number 37-01	January 2016	Golder Associates Inc.

Document	Date	Author
NIPSCO R.M. Schahfer Generating Station, CCR Landfill Run-on and Run-off Control System Plan	October 2016	Golder Associates Inc.
Northern Indiana Public Service Company R.M. Schahfer Generating Station, Second Annual RCRA CCR Unit Inspection Report, Restricted Waste Type I Landfill, Operating Permit Number 37-01	January 2017	Golder Associates Inc.
Weekly Inspection Reports	2017	NIPSCO

4.0 2017 VISUAL INSPECTION

The 2017 onsite inspection of the active portions of the CCR Landfill (Phases V and VI) was performed by Ms. Tiffany Johnson, P.E. and Ms. Samantha Fentress of Golder Associates Inc. (Golder) on October 18, 2017. Ms. Johnson is a Professional Engineer licensed in the State of Indiana. Golder's inspectors were directed by Mr. Joe Kutch, Coal Combustion Residuals Program Manager with NIPSCO RMSGS.

The inspection provides the following information as stipulated in 40 CFR 257.84(b):

- Any changes in geometry of the CCR Landfill since the previous annual inspection.
  - The southern and western slopes of Phase V were recently closed, the slopes were grassed and the on cap and perimeter storm water management system was improved.
  - Other than active filling within Phase VI, there were no other changes noted to the landfill's geometry since the last inspection.
- The approximate volume of CCR contained in the CCR unit at the time of the inspection.
  - Approximately 1,216,098 cubic yards (addition of 321,938 cubic yards since the previous inspection) in active Phases V and VI of the CCR Landfill.
- 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.
  - None were observed.
- Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.
  - None were observed.

Based on observations made on October 18, 2017, the overall condition of the active portions of the CCR Landfill is acceptable. No structural weaknesses or safety issues were observed within the berms, active areas or closed areas. Based on visual observations made on October 18, 2017, there were no visual conditions identified that would likely impact the operation of the active portions of the CCR Landfill.

5.0 CLOSING

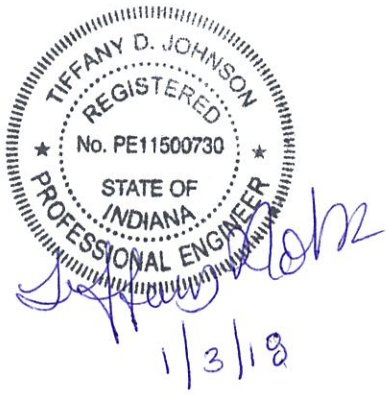
This report has been prepared in general accordance with normally accepted civil engineering practices to fulfill the Resource Conservation and Recovery Act (RCRA) reporting requirements in accordance with 40 CFR 257.84(b). Based on our review of the information provided by NIPSCO and on Golder's on-site visual inspection, the overall condition of the landfill is acceptable. Golder's assessment is limited to the information provided to us by NIPSCO and to the features that could be inspected visually in a safe manner. Golder cannot attest to the condition of subsurface or submerged structures.

Sincerely,

GOLDER ASSOCIATES INC.

Tiffany D. Johnson, P.E.
Associate

Samantha Fentress
Engineer



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