



REPORT

Northern Indiana Public Service Company, LLC R.M. Schahfer Generating Station

Annual RCRA CCR Unit Inspection Report

Restricted Waste Type I Landfill - Operating Permit Number 37-01

Submitted to:

Northern Indiana Public Service Company, LLC

2723 East 1500 North, Wheatfield, Indiana, USA 46392

Submitted by:

Golder Associates Inc.

15851 South US 27, Suite 50 Lansing, Michigan, USA 48906

+1 517 482-2262

21496761

December 31, 2021

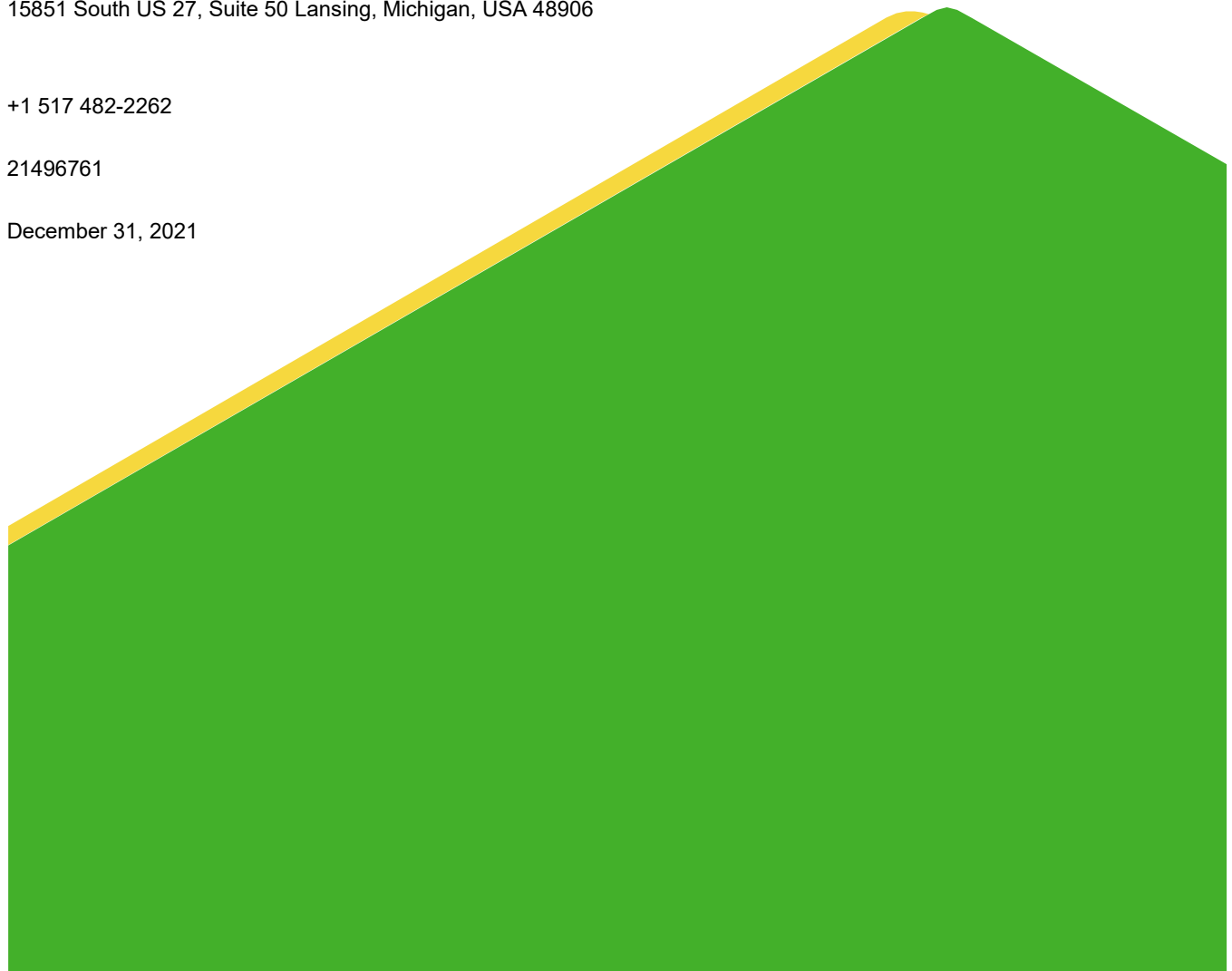


Table of Contents

1.0 INTRODUCTION	3
2.0 FACILITY DESCRIPTION.....	3
3.0 BACKGROUND AND DOCUMENT REVIEW SUMMARY	4
4.0 2021 VISUAL INSPECTIONS.....	6
5.0 CLOSING	7

TABLES

Table 1: Summary of Background Document Review.....	4
---	---

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 USA Inc. (Golder) was retained by Northern Indiana Public Service Company, LLC (NIPSCO) to perform the 2021 annual inspection of the Restricted Waste Site Type I Landfill, permitted by the Indiana Department of Environmental Management (IDEM), per Permit Number 37-01, most recent approval dated May 23, 2018, a CCR landfill located at the R.M. Schahfer Generating Station (RMSGs, Site).

This report presents the results of the 2021 annual inspection of the CCR Landfill unit at the NIPSCO 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 25, 2021. 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 was given approval for a minor modification to their operating permit from the Indiana Department of Environmental Management (IDEM) to operate a Type I, Restricted Waste Landfill (RWS I) at RMSGs on May 23, 2018 (Operating Permit 37-01). The active portions of the CCR Landfill take dry fly ash and other approved coal combustion wastes from the RMSGs Units and Michigan City 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 170 acres. The current 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 been closed, and Phase VI is lined and was actively being closed during this inspection. Phase VI closure construction activities were completed on December 15, 2021. Phase VII construction was completed in 2018, and was commencing waste placement as of the 2021 inspection. Phase V, Phase VI, and Phase VII have a soil/geosynthetics floor liner with a 3 horizontal to 1 vertical (3H:1V) perimeter containment berm with a crest elevation of approximately 667 feet above mean sea level (msl). The 3H:1V perimeter 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 726 feet msl.

NIPSCO has determined that Phases V, VI, and VII of the landfill are subject to the CCR Rule requirements as being active, as of the effective date of the rule. As such, this annual inspection pertains to Phases V, VI, and VII. Phase V is an approximately 18-acre phase located in the southwestern corner of the landfill footprint. At the writing of this report, Phase VI was currently under construction of closure activities and Phase V was closed in 2017. Phase VI is an approximately 15-acre phase located directly to the north of Phase V. Phase VII is approximately 14-acres (partial cell) and is located north of Phase VI. As of the timing of this report, waste placement activities were only occurring within Phase VII.

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

Document	Date	Author
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.
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-October 2020	NIPSCO
Minor Modification Request, Permit FP 37-01 NIPSCO – R.M. Schahfer Generating Station Wheatfield, Indiana, Jasper County	November 2017	NIPSCO and Weaver Consultants Group
Northern Indiana Public Service Company R.M. Schahfer Generating Station, Third Annual RCRA CCR Unit Inspection Report, Restricted Waste Type I Landfill, Operating Permit Number 37-01	January 2018	Golder Associates Inc.
Solid Waste Land Disposal Facility - Minor Modification – R.M. Schahfer Generating Station RWS 1, Jasper County, SW Program ID 37-01, Approval Letter	May 2018	IDEM
Northern Indiana Public Service Company R.M. Schahfer Generating Station, Fourth Annual RCRA CCR Unit Inspection Report, Restricted Waste Type I Landfill, Operating Permit Number 37-01	January 2019	Golder Associates Inc.
Northern Indiana Public Service Company	January 2020	Golder Associates Inc.

Document	Date	Author
R.M. Schahfer Generating Station, Fifth Annual RCRA CCR Unit Inspection Report, Restricted Waste Type I Landfill, Operating Permit Number 37-01		
Northern Indiana Public Service Company R.M. Schahfer Generating Station, Annual RCRA CCR Unit Inspection Report, Restricted Waste Type I Landfill, Operating Permit Number 37-01	December 31, 2020	Golder Associates Inc.

4.0 2021 VISUAL INSPECTIONS

The 2021 onsite inspection of the active portions of the CCR Landfill (Phase VI) was performed by Ms. Tiffany Johnson, P.E. and Mr. Peter Joplin, P.E. of Golder on October 25, 2021. Both Ms. Johnson and Mr. Joplin are Professional Engineers licensed in the State of Indiana. Golder's inspectors were directed by Mr. Joe Kutch, Manager, Environmental Compliance with NiSource Corporate Services.

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
 - Phase VII construction was completed in 2018 and waste placement has commenced in this new phase at the time of inspection.
 - Other than active filling within Phase VII, 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 1,091,634 cubic yards as of October 25, 2021 (addition of approximately 192,923 cubic yards since the previous inspection) in Phase VI and Phase VII 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.
 - There was an observed low point in the rain flap located along the northern perimeter berm that requires repair and could affect operations, however this item would not affect stability of the unit. This item was immediately brought to NIPSCO's attention and was repaired immediately on October 25, 2021 using a temporary berm. A revised rain flap design is currently underway and NIPSCO expects that the revised design will be constructed in 2022.
- 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 25, 2021, 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 25, 2021, there was one issue identified that would likely impact the operation of the active portions of the CCR Landfill which was the low point in the rain flap. The rain flap required immediate repair which was completed by NIPSCO on October 25, 2021, the same day the issue was identified.

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.



Peter Joplin, P.E.
Senior Project Engineer



Tiffany D. Johnson, P.E.
Principal and Indiana P.E. #11500730

