



## 2024 Annual Landfill Inspection

*Hoot Lake Plant – Coal Ash Landfill*



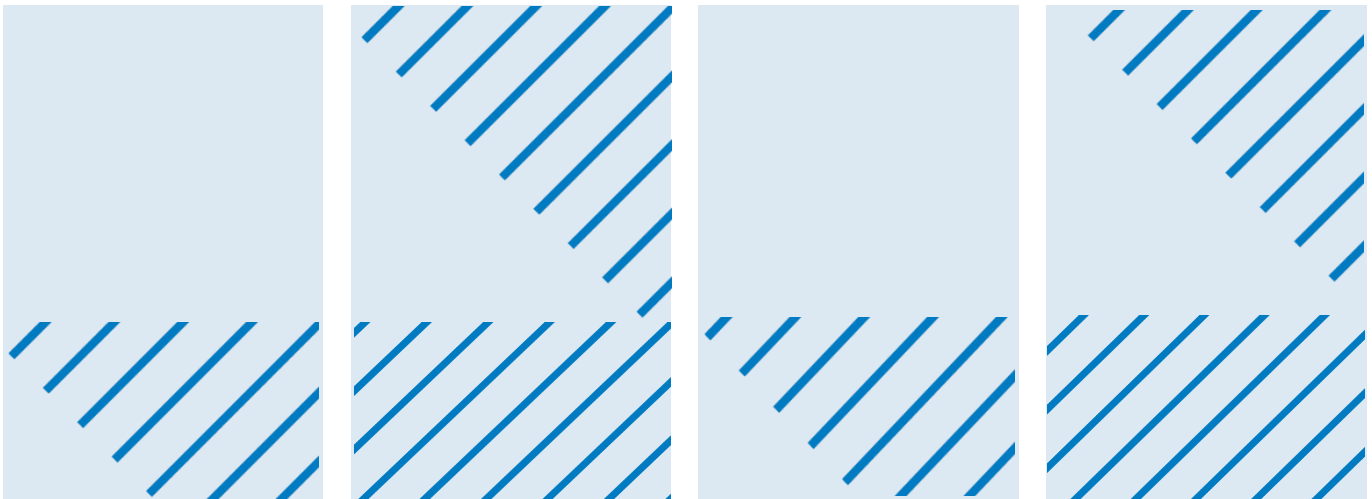
Prepared for  
Otter Tail Power Company  
Fergus Falls, Minnesota

Prepared by  
Barr Engineering Co.

December 2024

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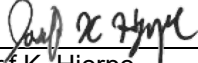
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## Certification

I hereby certify that I, or someone under my direct supervision, have examined the Hoot Lake Plant Coal Ash Landfill, and, being familiar with the provisions of 40 CFR 257 Subp. D and standard practices of the industry, I have determined that the Coal Ash Landfill design, construction, operation, and maintenance are consistent with generally accepted good engineering standards.

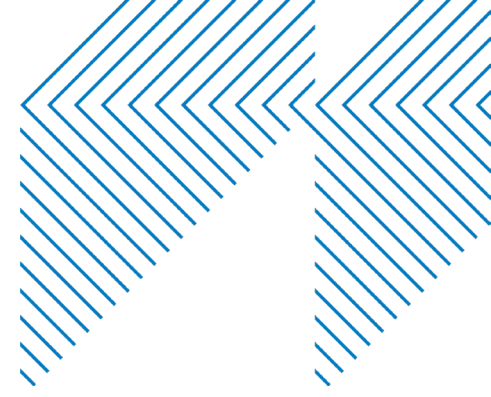
I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

A handwritten signature in black ink, appearing to read "Josef K. Hjerpe".

\_\_\_\_\_  
Josef K. Hjerpe  
PE #: 57751

December 7, 2024

\_\_\_\_\_  
Date



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## Abbreviations

CCR	Coal Combustion Residuals
EPA	Environmental Protection Agency
Hoot Lake	Hoot Lake Plant
Landfill	Hoot Lake Ash Landfill
MPCA	Minnesota Pollution Control Agency
OTP	Otter Tail Power Company
QPE	Qualified Professional Engineer

# 1 Introduction

Otter Tail Power Company (OTP) operated the Hoot Lake Plant (Hoot Lake) in Fergus Falls, Minnesota. Hoot Lake was a coal-fired electrical generating plant which ceased operation in June 2021. The operation of the facility resulted in coal combustion residuals (CCR) as a by-product, which were disposed of in the Hoot Lake Ash Landfill (landfill). The landfill is subject to Federal Standards for Disposal of Coal Combustion Residuals in Landfills under the Environmental Protection Agency's (EPA) CCR rule 40 CFR Section 257.84(b). Landfill final closure construction was completed in 2023. The Minnesota Pollution Control Agency (MPCA) approved the final closure in January of 2024.

The landfill comprises two phases: Phase I and Phase II. Phase I was closed with final cover in place prior to the effective date of the rule and is therefore excluded from the CCR requirements of the CCR Rule (40 CFR Section 257). Phase II operated after the effective date of the rule and is required to meet the CCR Rule requirements for landfills. Phase II is subject to annual inspections by a qualified professional engineer (QPE). This report documents the 2024 annual inspection, as required by the CCR Rule.

## 2 Review of Existing Information

Existing information was reviewed in accordance with CCR Rule 40 CFR Section 257.84(b)(1)(i) to confirm that the design, construction, operation and maintenance of the landfill is consistent with recognized and generally accepted good engineering standards. No deficiencies were found and the existing information reviewed is described in following subsections.

### 2.1 Results of Weekly Inspections

Weekly landfill inspections (intervals not exceeding seven days) were conducted by a qualified person through January 2024. After the approval of the final closure by the MPCA on January 25, 2024, the inspection interval was changed to be quarterly. Weekly inspection reports from December 8, 2023, through January 30, 2024, and quarterly reports from March, June, September and November 2024 were reviewed as part of the QPE annual inspection. Review of the weekly and quarterly inspection reports did not identify any potential issues with operation or maintenance of the ash landfill.

### 2.2 Results of Previous Annual Inspections

The 2023 annual inspection report was reviewed in preparing this 2024 report. The 2023 report did not identify any significant deficiencies at the facility when compared with industry practices, CCR rule requirements, and state permit and rule requirements.

### 3 Structural Integrity and Operational Review

An on-site inspection of Landfill Phase II was performed on October 7, 2024, to visually identify signs of distress or malfunction of the CCR Unit. The results of the inspection are included in the following subsections.

#### 3.1 Visual Inspection of Landfill

Inspection consisted of on-foot inspection of the landfill perimeter slopes and final covered areas. Visual inspection items and results are summarized in the following table:

**Table 3-1 Summary of Visual Inspection**

Item	Visual Inspection Description	Consistent With Good Engineering Standards (Yes/No)	Comments
1	Proper placement of waste	Yes	No waste placement issues observed at time of inspection.
2	Adequate slope stability and erosion control	Yes	All slopes appear adequate for slope stability. No issues were observed at the time of inspection.
3	Run-on and Run-off controls properly functioning	Yes	Surface water controls on the slopes appeared adequate at time of inspection.
4	Surface water percolation minimized	Yes	No surface water ponding or excessive leachate generation observed at time of inspection.
5	Liner systems properly operated and maintained	Yes	No liner systems issues observed at time of inspection.
6	Leachate collection systems properly operated and maintained	Yes	No leachate collection issues observed at time of inspection. Pipes are routinely jetted. Leachate level is maintained at less than 1-foot of head above the liner
7	Water quality monitoring systems maintained and operating	Yes	Existing monitoring wells were accessible and appeared to be in good condition at time of inspection.
8	Dust adequately controlled	Yes	No dust issues present at time of inspection.
9	Geometry of landfill is unchanged from previous inspection.	Yes	The geometry of the landfill is unchanged from 2023.
10	Animal burrows absent or of no significance	Yes	Minor rodent burrows noted at time of inspection. Not considered significant.
11	Adequate vegetation density and vegetation maintenance	Yes	Vegetation appeared well established and well maintained at time of inspection.
12	Debris controlled or absent	Yes	The landfill has now been closed.

## 3.2 Other Changes

No other changes to the landfill design, maintenance, or operations that could affect the stability or operation of the CCR Unit were observed as part of the annual inspection. Final closure construction of the landfill occurred in 2023.



## 4 Volume of CCR Contained

Ash was last hauled to the landfill in June of 2021. Phase I was closed with final cover prior to the effective date of the rule and is therefore excluded from the CCR volume reported below. Table 4-1 summarizes the volume of CCR contained in the landfill to-date at the time of the inspection.

**Table 4-1 Volume of CCR Contained in Landfill**

Phase/Cell	Current Volume of CCR Contained in Landfill (cubic yards)	Status of Phase/Cell
Phase II Cells 1 & 1A	278,796	Closed
Phase II Cell 2	325,453	Closed
Total in CCR Unit	604,249	

The approximate volume of CCR contained in the landfill at the time of the inspection was 604,249 cubic yards.