

# **CCR Landfill 2024 Annual Inspection Report**

## **North Omaha Station Ash Disposal Area**



**Omaha Public Power District  
North Omaha Station**

*Omaha, Nebraska*  
**January 10, 2025**

**OPPD North Omaha Station  
Ash Disposal Area  
CCR Landfill 2024 Annual Inspection Report**

**Table of Contents**

Professional Engineer Certification ..... 1

1 Introduction ..... 2

    1.1 Purpose ..... 2

    1.2 Facility Background ..... 2

2 Review of Available Information (40 CFR 257.84(B)(1)(i)) ..... 3

3 Visual Site Inspection (40 CFR 257.84(B)(1)(ii)) ..... 3

    3.1 Extent of Inspection ..... 3

    3.2 Inspection Findings..... 4

4 Changes in Geometry ..... 4

5 Approximate CCR Volume ..... 4

6 Appearance of Structural Weakness ..... 4

7 Changes Affecting Stability or Operation ..... 4

**Appendices**

Appendix A:           Facility Site Map

**OPPD North Omaha Station  
Ash Disposal Area  
CCR Landfill 2024 Annual Inspection Report**

**Professional Engineer Certification**

"I hereby certify that the CCR landfill known as the North Omaha Ash Disposal Area at the North Omaha Generating Station, owned and operated by the Omaha Public Power District, was inspected and this report prepared in accordance with the Coal Combustion Residual Rule 40 CFR 257.84(b). I am a duly licensed Professional Engineer under the laws of the State of Nebraska."

Name: Joseph R. Shields. PE

Registration State: Nebraska

Registration Number: E-8034

Date: 1/10/2025

My license renewal date is December 31, 2026.

# 1 Introduction

Omaha Public Power District (OPPD), North Omaha Generating Station (NOS) operated an existing coal combustion residuals (CCR) landfill, referred to as the North Omaha Ash Disposal Area. In August 2024, the North Omaha Ash Disposal Area stopped receiving ash and was subsequently closed. On April 17, 2015, the U.S. Environmental Protection Agency published the final rule for regulation and management of CCR under Subtitle D of the Resource Conservation and Recovery Act (CCR Rule). Requirements for the disposal and handling of CCR within units (either landfills or surface impoundments) are defined in 40 Code of Federal Regulations (CFR) Section 257.

Section 257.84(b) of the regulations specifies that an owner or operator of a CCR landfill have a qualified professional engineer inspect the landfill annually to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. This annual inspection report meets this requirement for the North Omaha Ash Disposal Area.

## 1.1 Purpose

The CCR rule requires the initial inspection report for existing CCR landfills be completed and filed in the operating record on an annual basis. The completion date of the last inspection report (i.e., placed in the facility operating record) establishes the deadline to complete the next inspection. Subsequent inspections and reports are to be completed on an annual basis. The requirements of the annual inspection include:

- A review of available information regarding the status and condition of the CCR unit - 257.84 (B)(1)(i),
- A visual inspection of the CCR unit to identify signs of distress or malfunction - 257.84 (B)(1)(ii),
- An inspection report that includes the following:
  - Changes in geometry since the last inspection - 257.84 (B)(2)(i)
  - Approximate volume of CCR in unit at time of inspection - 257.84 (B)(2)(ii)
  - Appearance of 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 - 257.84 (B)(2)(iii)
  - Any other changes which may have affected the stability or operation of the CCR unit since the last inspection - 257.84 (B)(2)(iv)

OPPD, as owner and operator of the NOS, will notify the Nebraska Department of Environment and Energy (NDEE) Director within 30 days of placing this Landfill Annual Inspection Report in the operating record and posting to the CCR web site (40 CFR §257.106 and §257.107).

## 1.2 Facility Background

The NOS is in Omaha, Nebraska, along the west bank of the Missouri River. North Omaha

Ash Disposal Area is permitted under NDEE Title 132 regulations for fossil fuel combustion ash disposal (NDEE Permit No. NE0054739, Facility ID 59763). It is located on the north-northwest portion of the NOS property and encompasses approximately 18 acres. On September 24, 2024, the facility was certified as closed. A facility site map is included in Appendix A.

## **2 Review of Available Information (40 CFR 257.84(B)(1)(i))**

Documents pertaining to the operation and structural integrity of the CCR landfill were reviewed before, during and after the site inspection, including:

- North Omaha Ash Disposal Area weekly inspection records
- NDEE Title 132 Permit No. NE0054739, last revised December 13, 2023
- Professional Engineer Closure Construction Certification dated September 24, 2024
- *Construction Quality Assurance Report for NOS CCR Monofill Closure*, prepared by HDR Engineering, Inc., September 24, 2024.
- NDEE Compliance Evaluation Inspection, November 20, 2024

Review of the above documents did not uncover issues that indicated operational, safety or structural concerns with the NOS Ash Landfill.

## **3 Visual Site Inspection (40 CFR 257.84(B)(1)(ii))**

On November 20, 2024, OPPD personnel performed a site inspection of the North Omaha Ash Disposal Area, including:

- Joseph R. Shields PE, Environmental Operations, Senior Engineer
- Ryan Layman, Sustainability and Environmental Affairs, Program Administrator
- Melissa Lester, PE, Design Engineering, Lead Engineer,

The weather during the site visit was overcast with temperatures around 40 degrees Fahrenheit and high winds. The site was free of snow cover.

### **3.1 Extent of Inspection**

The inspection included a driving and walking review of the North Omaha Ash Disposal Area. As the CCR rule only requires the inspection of the existing active CCR landfill itself, this report does not address the condition of the groundwater monitoring system, access roads beyond the landfill perimeter, or other NOS facilities that are not part of the CCR landfill.

The field visit included inspection of the following:

- Perimeter channel conditions
- Side slope conditions

### **3.2 Inspection Findings**

The following are the findings of the site inspection:

- Closure construction was complete at the time of inspection.
- Good vegetation coverage had emerged on the landfill top and slopes, but was not mature enough to consider established. Vegetation establishment will be documented when determined acceptable.
- Some erosion was noted on side slopes and channels, particularly in the channel west of the new Ash Storage Building (see Figure 1). OPPD has made plans to repair the channel and some slope area next spring.

## **4 Changes in Geometry**

The CCR rule requires identification of site geometry changes since the last annual inspection. Final reshaping and capping of the landfill occurred in September 2024. Final contours are documented in the *Construction Quality Assurance Report for NOS CCR Monofill Closure*.

## **5 Approximate CCR Volume**

Total ash disposal is calculated by adding the amount of CCR deposited in 2024 to the amount landfilled through November 2023, which was estimated to be 921,900 cubic yards. The estimated quantity of ash generated from the plant and not sold between December 2023 through September 2024, when the landfill was closed, is about 4,000 cubic yards. Therefore, the estimated total volume of CCR at the time of inspection was approximately 925,900 cubic yards.

## **6 Appearance of Structural Weakness**

Based on the visual inspection, no apparent or potential structural weaknesses were observed.

## **7 Changes Affecting Stability or Operation**

The CCR rule requires that changes that affect stability or operation of the CCR landfill be identified since the last annual inspection. Acceptance of ash for disposal ceased in August 2024 and the landfill was closed in September 2024. Stability of the final landfill slopes are documented in NDEE Title 132 Permit No. NE0054739, revised December 13, 2023.

**Appendix A**  
**Facility Site Map**



**OPPD**  
**NORTH OMAHA STATION**  
**NORTH OMAHA ASH LANDFILL**

INSPECTION MAP

DATE  
January 2025

FIGURE

1