CCR Annual Fugitive Dust Control Report

Omaha Public Power District
Nebraska City Station

Nebraska City, Nebraska
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1 Introduction

On April 17, 2015, the U.S. Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR) under subtitle D of the Resource Conservation and Recovery Act (RCRA). The CCR rule defines a set of requirements for the disposal and handling of CCR in landfills and surface impoundments. One of the operating criteria for air, 40 CFR §257.80(c), specifies that an owner or operator of a CCR landfill, surface impoundment, or lateral expansion of a CCR unit must complete an annual fugitive dust report.

1.1 Purpose

The CCR rule requires CCR landfills to develop a CCR fugitive dust control plan and adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities (40 CFR §257.80(a)). The plan must include:

- Identification of the CCR handling areas and control measures taken to minimize CCR fugitive dust at the facility
- Explanation of how dust control measures selected are applicable and appropriate for site conditions
- Emplacement of CCR in the landfill as conditioned CCR
- Procedures to log citizen complaints involving CCR fugitive dust events at the facility
- Description of procedures to periodically assess effectiveness of control plan

Additionally, an annual report must be developed to include any actions taken by the owner or operator to control fugitive dust, a record of all citizen complaints, and a summary of any corrective action measures taken. The initial annual report must be placed in the operating record no later than 14 months after placing the initial fugitive dust control plan into the operating record. All subsequent annual fugitive dust reports are required to be complete 1 year following the date of the previous report.

1.2 Fugitive Dust Control

The CCR generated at the Station is bottom ash and fly ash (including flue gas emission control derived material) from NC Units 1 and 2. The bottom ash removal system collects, dewaters, and conveys bottom ash and furnace slag from NC Unit 1 and Unit 2 bottom ash hopper via submerged chain conveyor to an open-top dump truck. Loadout occurs within the building on a concrete floor and bottom ash is taken to the existing NC2 CCR landfill for emplacement or stockpiled prior to off-site beneficial use. Fly ash from the NC Unit 1 economizer is conveyed to the silo and then loaded into trucks for transport and emplacement in the existing NC2 CCR landfill. Fly ash from NC Unit 1 may also be pneumatically conveyed to the ash storage building for temporary storage prior to loading into enclosed trailers for subsequent offsite beneficial use. Loading occurs inside the building which is equipped with a dust collector. Fly ash from NC Unit

2 is pneumatically conveyed to the silo for temporary storage before being loaded into open-top trailers and transported to the existing NC2 CCR landfill for emplacement. The fly ash is moisture conditioned.

The ash contractor for OPPD has utilized the following dust control measures to minimize fugitive dust:

- Watering all areas of active equipment, haul roads, and active areas on the landfill
- CCR conditioning
- Covering trailers after loading
- Ceasing operations on high wind days
- Good compaction of ash in active areas
- Reducing the active working area of the ash disposal area
- Surface binder is applied to inactive areas of open face
- Contractor & personnel communications
- Reduce speed on haul roads

Visual checks of the landfill are done daily to ensure that fugitive dust is being controlled.

1.3 Citizen Complaints

OPPD's procedures to receive and log citizen complaints involving CCR fugitive dust events at the facility include the following:

- Citizens can complete an on-line form for complaints on CCR fugitive dust. The OPPD website (www.oppd.com) contains a link to the CCR Rule Compliance Data and Information website. A link to the on-line form is made available on the CCR website.
- When citizens submit the form, a designated OPPD person(s) will be notified.
- Appropriate personnel will investigate the complaint.
- Any corrective actions taken will be documented.
- A record of citizen complaints and responses will be maintained in the appropriate files.

OPPD did not receive any complaints related to fugitive dust in 2025.

1.4 Corrective Action Items

OPPD will conduct no corrective actions related to citizen complaints. OPPD is continuing to evaluate changes in the dust control plan due to a statistically significant level (SSL) above the established groundwater protection standard for lithium at a monitoring well downgradient of the NC2 ash landfill. The SSL related to lithium was most likely due to windblown ash settling near the monitoring well and percolating down into the groundwater following precipitation events. OPPD completed an Assessment of Corrective Measures in 2020 and, as required by 40 CFR Part 257, selected a remedy in 2021.

OPPD obtained approval from the Nebraska Department of Environment and Energy (NDEE) for an NC2 landfill permit change that allows the use of an ash surface binder for controlling windblown dust on the landfill. Beginning in 2021, OPPD applied ash surface binders to the entire

open face of the landfill after state approval. OPPD has maintained application of the ash surface binder on inactive areas through 2025 and continues to evaluate the effectiveness.

Visual observations made by OPPD and ash handling personnel have indicated a significant reduction in windblown ash originating from the landfill since the initial application of the surface binder. OPPD will continue to apply a surface binder to inactive areas of the landfill.