

**Gainesville Regional Utilities  
Deerhaven Generating Station**

**Coal Combustion Residuals Fugitive Dust Control Plan  
(Version 2.0)**



Updated November 2024

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**1.0 Introduction**

Gainesville Regional Utilities (GRU) operates the Deerhaven Generating Station (facility) located in Gainesville, Florida. The facility has the ability to produce electricity from a variety of sources, including coal. Due to a natural gas conversion project which allows Unit 2 to fire up to 100% natural gas, this unit no longer generates coal combustion residuals (CCR) as a result of not meeting the criteria presented in 40 CFR 257.50(f). Historic CCR produced at the facility was managed at a CCR landfill (Figure 1-1).



Figure 1-1. Deerhaven Generating Station (image from Google Earth, 5/27/2023)

This fugitive dust control plan describes the methods used by GRU to control fugitive CCR dust emissions, details additional procedures which will be implemented in the event that CCR fugitive dust emissions are observed or if citizen complaints concerning CCR dust are received, includes a logging form to document citizen complaints, describes the procedure for assessing the effectiveness of this dust control plan, and describes the development of an annual CCR fugitive dust control report. This plan was created in accordance with the requirements described in Title 40, Code of Federal Regulations, Section 257.80.

### 1.1 Document Version

This control plan is intended to be a living document that can be modified, as necessary. Each modification to this CCR fugitive dust control plan should be documented in this section along with the date of modification.

Version	Date	Brief Description of Modification(s)
1.0	October 2015	N/A (original document)
2.0	November 2024	Surface Impoundment System Closure

### 1.2 Facility CCR

The facility historically generated the following CCR:

1. **Bottom ash** – Bottom ash consists of the ash fraction which drops below the boiler during coal combustion. When generated, bottom ash is sluiced to one of the two process ponds located at the facility by pipeline.
2. **Fly ash** – Fly ash is generated from air pollution control equipment and consists of particulates removed from stack emissions. Fly ash is stored in a silo and is moisture conditioned prior to discharge into trucks for transport. Fly ash was predominantly transported offsite for beneficial use. However, a relatively small amount of this material was also occasionally placed in the CCR landfill.
3. **Flue Gas Desulfurization (FGD) Byproduct** – FGD byproduct is produced when a circulating dry scrubber system is used for the removal of acid gas components (e.g., SO<sub>x</sub>, HCl, HF, and other trace pollutants) from the flue gas. FGD byproduct is stored in a silo and is moisture conditioned prior to discharge into trucks for transport to the CCR landfill.

### **1.3 *Potential Sources of CCR Fugitive Dust***

#### **1.3.1 *Overview***

The discharge of fly ash and FGD byproduct into trucks for transport has been rigorously operated and monitored to minimize dust generation by implementing provisions such as moisture conditioning and enclosed chutes; more details of these systems are presented in the Best Management Practices Guide for Managing Coal Combustion Residuals, a guidance document kept at the facility. After loading into trucks, fugitive CCR dust emissions could occur during CCR truck transport on paved and unpaved roads, and during material deposition at the CCR landfill.

#### **1.3.2 *CCR Landfill***

Occasional small amounts of bottom ash, FGD byproduct, and fly ash may be disposed of in the CCR landfill. As possible, each of these materials is disposed of in the landfill in a segregated manner to optimize the potential for future recovery and beneficial use.

Bottom ash removed from the process ponds is relatively moist during excavation, loading, transport, and unloading at the CCR landfill. The bottom ash is allowed to dewater at the CCR landfill to the point that it can be spread in thin layers and compacted while still precluding dust generation. FGD byproduct is moisture conditioned prior to discharge into haul trucks for transport to CCR landfill. Similar to the bottom ash, discharged loads of FGD byproduct are spread in thin lifts and compacted. Aggregation and cementation of CCR particles over time, especially on the surface of the CCR landfill, significantly reduces dust emissions associated with wind erosion.

#### **1.3.3 *Paved and Unpaved Roads***

The CCR landfill access ramp and internal roads are unpaved. Mechanical disturbance (e.g., wind turbulence) of CCR in the trucks and pulverization and uplifting of CCR from truck movement over unpaved CCR landfill access roads are additional means by which CCR could become airborne.

## **2.0 Road Dust Control Measures**

As necessary, a water truck equipped with a spray bar is used to wet roads during dry and windy conditions.

## **3.0 CCR Landfill Dust Control Measures**

During typical landfill operations, operators spread and compact materials received at the CCR landfill on a daily basis to minimize the number of loose piles. These measures have historically been sufficient to minimize dust emissions once the materials are compacted; however, dust generation can still occur from moving and compacting materials, and occasionally from relocating dried CCR. The following additional measures are implemented, if needed, to mitigate

dust generation from the CCR landfill:

- a. A water truck equipped with a spray bar is used to wet dust-producing surfaces (e.g., exposed CCR or other dried materials), as needed, during dry and/or windy conditions. This truck is used throughout the facility to help control dust.
- b. Misting of non-moisture conditioned material, if received. Occasionally, FGD byproduct and fly ash are transported to the CCR landfill in a dry condition. A landfill operator supervises the unloading, placement, and compaction of these materials and may mist water over stockpiled materials

#### **4.0 Additional Dust Control Measures**

Depending on the specific dust- generating activity of concern, the following techniques may be utilized to control dust in the event the measures described above are not effective:

- a. Require and enforce lower speed limits (i.e., less than 20 mph)
- b. Apply gravel or other aggregate over unpaved roads.
- c. Increase the frequency of water application to facility roads and the surface of the CCR landfill, especially during dry conditions.
- d. Reduce the time interval between unloading and compacting loose material piles.
- e. Implement and maintain a vegetative cover over inactive areas of the landfill.
- f. Cease material hauling and disturbance during high-wind conditions.
- g. Use a chemical dust suppression agent (e.g., chloride-based, asphalt-based, or lignin-based). The use of a chemical dust suppression agent will be considered based on ease of application, cost, impacts to landfill operations, and any regulatory or facility certification prohibitions.

In the event facility practices warrant revisions to this plan (e.g., modifications in CCR transport or management practices), this plan will be updated and a copy of the revised plan will be placed in the operating record.

#### **5.0 CCR Dust Complaint Logging**

Citizen complaints regarding CCR fugitive dust will be logged by GRU. A form for recording citizen complaints regarding CCR fugitive dust is included as Addendum A. The form also includes a section for a detailed description of the corrective actions taken to address the complaint. Follow-up contact with the person(s) who filed the complaint will be performed to ensure that the problem has been addressed. This form will be completed and placed in the operating record any time a citizen CCR dust complaint concerning the facility is received by GRU.

### 6.0 Assessment of Dust Control Effectiveness

The effectiveness of these dust control measures will be annually assessed during the development of the Annual CCR Fugitive Dust Control Report using the following procedures:

- a. GRU will review weekly inspections for visual dust emissions from CCR landfill and access roads.
- b. GRU will review all dust release complaints received in the last year.
- c. GRU will review the specific actions that were taken to address the complaints, as documented on the complaint log form.
- d. GRU will identify whether any additional complaints were received immediately following the documented dust control action.
- e. If additional dust complaints were not received immediately following the implemented dust control action, GRU will consider adding the specific dust control action to the dust control methods included, if not included already, in the dust control plan.
- f. If additional dust complaints were received immediately following the implemented dust control action, GRU will evaluate whether or not the dust complaint was a result of CCR released from the CCR landfill or if it appears the complaint was the result of dust generated from a different source. If it appears the complaint was from another source, no additional dust control measures will be implemented. However, if it appears that the dust complaint was a result of dust from the CCR landfill, then GRU will implement additional dust control measures as described in Section 4.0. In the event that CCR dust emissions continue to be an issue even after implementation of all the additional dust control measures described in Section 4.0, GRU will select a qualified professional engineer within 7 days of the occurrence to evaluate additional strategies which may be used to control fugitive CCR dust. Once additional successful measures have been implemented, the dust control plan will be amended, and a revised version of the plan will be placed in the operational record.

### 7.0 Annual CCR Fugitive Dust Control Report

No later than 19 December 2024, and annually thereafter, GRU will develop and place a CCR Fugitive Dust Control Report in the operating record, send a notification of placement of this report in the operating record and a copy of the report to the Florida Department of Environmental Protection, and place a copy of the report on GRU's publically-accessible internet site. This report will include the following elements:

- A description of the measures which were taken to control CCR dust from the CCR landfill since the last annual fugitive dust control report.
- A copy of all completed complaint logging forms which include a description of the

corrective measures taken to address citizen complaints.

- A narrative describing the results of the evaluation steps (described in Section 7.0) that were taken to validate the adequacy of (or the need to adjust) the dust control measures described in Sections 2.0, 3.0, and 4.0.

## 8.0 Professional Engineer Certification

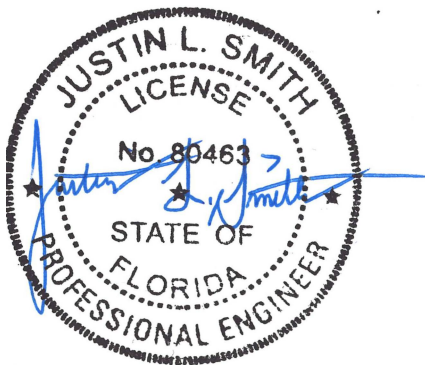
This plan was prepared under the supervision, direction and control of the undersigned registered professional engineer (PE). The undersigned PE is familiar with the requirements of 40 CFR 257.80. The undersigned PE certifies that this CCR Fugitive Dust Control Plan meets the requirements of 40 CFR 257.80. This certification was prepared per the requirement of 40 CFR 257.80(b)(7).

Name of Professional Engineer: Justin L. Smith

Company: Gainesville Regional Utilities

PE License No.: 80463

Signature, Date and PE Seal:



This item has been digitally signed and sealed by Justin L. Smith on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



# **Addendum A**

## **CCR Dust Complaint Logging Form**

## CCR Fugitive Dust Complaint Log

<b>Name of Person Issuing Complaint</b>	
<b>Date</b>	
<b>Time</b>	
<b>Telephone #</b>	
<b>Email</b>	
<b>Address</b>	
<b>Address</b>	
<b>Notes on Complaint:</b>	
<b>Narrative of Specific Corrective Action Measures Taken:</b>	
<b>Contacted for Follow-Up? (Circle One)</b>	
YES	NO
<b>Notes from follow up:</b>	