

# **FUGITIVE DUST CONTROL PLAN**

**CCR Unit**

**Dominion Energy South Carolina  
Cope Station  
Teamwork Road  
Cope, S.C. 29038**

December 19, 2019



## REVISION HISTORY

<b>Revision Number</b>	<b>Revision Date</b>	<b>Section Revised<sup>1</sup></b>	<b>Type of Revision<sup>2</sup></b>	<b>Summary of Revisions<sup>3</sup></b>
1	12/19/16	5.3-2-2	Clerical Change	<i>October 19<sup>th</sup> to December 19<sup>th</sup>.</i>
2	12/19/19	All sections	Change in owner/operator	SCANA and SCE&G to Dominion Energy and DESC

**Footnotes:**

1. Notation refers to Section#-Paragraph#-Sentence#.
2. Only Technical Revisions will require updating of signatures.
3. Date of Plan revisions and updated Signatures are automatic and not included in Summary of Revisions.

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## LIST OF ACRONYMS

CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
DESC	Dominion Energy South Carolina
FGD	Flue Gas Desulfurization

## SECTION 1

### BACKGROUND

The CCR Rule requires owners or operators of Coal Combustion Residuals (CCR) facilities to adopt and document “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). Existing CCR surface impoundments and existing CCR landfills must prepare a Dust Control Plan “no later than October 19, 2015, or by initial receipt of CCR in any CCR unit at the facility if the owner or operator becomes subject to this subpart after October 19, 2015” (40 CFR 257.80 (b)(5)).

The purpose of this CCR Fugitive Dust Control Plan is to identify and describe the Coal Combustion Residuals (CCR) fugitive dust control procedures used to minimize the potential for CCR becoming airborne at the Facility. The following sections provide background information on (1) coal combustion residuals and (2) regulatory requirements.

#### 1.1 Coal Combustion Residuals

CCR materials are produced at coal-fired power plants when coal is burned to produce electricity. CCR materials are managed by coal-fired power plant sites, including on-site storage, processing, and final disposal, typically in CCR landfills. Types of CCRs typically generated include fly ash, bottom ash, and flue gas desulfurization (FGD) materials. General characteristics of these CCR materials are described below.

- **Fly Ash** – Fly ash is captured from exhaust (flue) gases by emissions control equipment including bag houses and electrostatic precipitators. Fly ash is characterized by clay-sized and silt-sized fine grain materials, consisting of silica, calcium, alumina, iron.
- **FGD Materials** – FGD materials are produced by FGD emissions control systems, which are designed and operated to remove sulfur dioxide (SO<sub>2</sub>) from exhaust (flue) gases. FGD materials are generally produced as a cake. FGD materials can form a crust on surfaces, reducing potential for dust issues from FGD storage areas.
- **Bottom Ash** – Bottom ash is characterized by sand-sized and gravel-sized materials, which settle by gravity to the bottom of a coal-fired furnace.

#### 1.2 Regulatory Requirements

This CCR Fugitive Dust Control Plan (Plan) is developed for the Dominion Energy South Carolina (DESC) Cope Station in accordance with applicable regulations, as discussed below.

### **1.2.1 CCR Rule Requirements**

The CCR Rule (40 Code of Federal Regulations [CFR] Part 257, Subpart D) requires preparation of a Dust Control Plan for facilities including CCR landfills, CCR surface impoundments, and any lateral expansion of a CCR unit. Selected definitions from the CCR Rule are provided below.

**CCR (coal combustion residuals)** means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

**CCR fugitive dust** means solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

**CCR landfill** means an area of land or an excavation that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

**CCR surface impoundment** means a natural topographic depression, manmade excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

**CCR unit** means any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.

**Qualified person** means a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit by visual observation and, if applicable, to monitor instrumentation.

**Qualified professional engineer** means an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.

## SECTION 2

### FACILITY INFORMATION

<b>Name of Facility:</b>	Cope Station
<b>Name of Operator:</b>	Dominion Energy South Carolina (DESC)
<b>Operator Mailing Address:</b>	Plant Manager Teamwork Road Cope, SC 29445
<b>Name of Owner:</b>	Dominion Energy South Carolina (DESC)
<b>Owner Mailing Address:</b>	220 Operation Way Cayce SC 29033
<b>Location:</b>	Orangeburg County, SC

#### Facility Description

The Facility is a Coal Fired Electric Generation Plant. The facility generates CCR waste from a Dry Scrubber process. This material is a combination of fly ash and lime that is generated from combustion of coal and the FGD Dry Scrubber. As generated, it contains moisture and pozzolanic qualities that when placed and compacted results in a hardened material generally not prone to dusting.

This CCR material is collected in onsite silos where it is held until operations require removal. Onsite disposal starts by loading the conditioned material into off road transport trucks at the silo. Water spray fogging may be used as necessary during loading.

Bottom ash is collected wet and is managed in a conditioned state during loading and transport to the onsite landfill.

Transport takes place over paved site roads to the onsite DESC Cope Station Class III landfill. The landfill Permit number is LF 3-00028 permitted under SC Regulations R.61-107. "Solid Waste Management". Site roads are routinely managed by water truck wetting, or vacuum truck as necessary.

Landfill transport and placement occurs during daylight hours generally during weekday operation of the landfill. Material is trucked into the landfill site on paved roads to the operating cell. CCR placement is managed at the cell to consolidate active placement in a minimum footprint to allow traffic to be isolated to areas of placement and off of lifts of rolled material. Coarser Bottom ash is reserved in part and used for access routes within the operating cell along with water truck operation during operation to minimize dust. Temporary cover may be placed on inactive areas of the landfill cell as required. The CCR material as

conditioned when spread and rolled will dry with a hard surface which is not prone to allow dust creation.

A Title V permit required “Fugitive Dust Control Plan” is maintained for the balance of plant CCR management and equipment.

## SECTION 3

### DUST CONTROL PROCEDURES

The following sections discuss dust control procedures for (1) CCR landfill unit, and (2) CCR unit travel roads. DESC Cope Station has implemented these dust control procedures, which are applicable and appropriate for site conditions in accordance with 40 CFR 257.80(b)(1).

#### **3.1 CCR Landfill**

CCR is transported from the generating facility to DESC Cope Station Landfill permitted as a Class III Landfill under SC Regulations R.61-107. “Solid Waste Management” CCR from the generating facility is generated and stored at onsite silos prior to load out at the generating plant. The material is conditioned as held within the silo; misters are employed during loading operation as necessary. Loaded trucks then transport to the landfill over paved site roads.

The following additional dust control procedures are typically implemented for the CCR Landfill.

- Placed material is pushed, spread, and compacted by equipment to maintain slope and grades to minimize erosion and dust.
- Water spray is applied from an onsite water spray tanker truck as necessary during ash placement.
- Travel routes over the active cell are wetted as necessary during operation as well as paved site access roads.
- Coarser bottom ash maybe reserved in part for surfacing routes within the cell areas as necessary to mitigate dusting.
- During high wind conditions, unloading operations at the working face may be halted, and additional dust suppression measures will be implemented.

When CCR operations are completed in a given area, as well as prior to any long-term inactivity in a given area, the areas are contoured as needed to reduce the slopes of any exposed CCR. Segregated material such as soil may be used as slope cover as necessary as cell filling progresses. Temporary cover may be placed as necessary over inactive areas.

#### **3.2 Facility Roads**

The following dust control procedures are implemented for roads used for CCR management activities at the Facility, or that are being traveled by equipment employed in CCR management activities.

- Reduced vehicle speeds are observed to reduce dust mobilization.
- During transportation CCR is conditioned by containing adequate moisture to minimize dust potential.
- Paved site roads used for transport to the CCR Unit are sprayed routinely by water trucks during daily operation.
- Specific Paved roads at the Generating Facility maybe cleaned by a sweeper/vacuum truck as necessary.
- Reduced vehicle speeds over active Landfill cells are observed to reduce dust mobilization.

## **SECTION 4**

### **TRAINING**

Training sessions will be conducted periodically to update employees on changes in the regulations, laws, or in-house procedures related to CCR management, including dust control procedures. Training records will be maintained at the Facility for five years. Sign-in sheets and topics of discussion at each briefing are maintained for documentation.

## SECTION 5

### RECORDKEEPING AND REPORTING

The following sections provide details regarding: (1) CCR Fugitive Dust Control Plan preparation, (2) community involvement, (3) annual reporting, and (4) CCR Fugitive Dust Control Plan assessment and update process.

#### **5.1 CCR Fugitive Dust Control Plan Preparation**

Existing CCR surface impoundments and existing CCR landfills must prepare a CCR Fugitive Dust Control Plan “no later than October 19, 2015, or by initial receipt of CCR in any CCR unit at the facility if the owner or operator becomes subject to this subpart after October 19, 2015” as required by 40 CFR 257.80 (b)(5).

A complete, updated copy of this Plan is maintained in the Facility operating record and on the Dominion Energy publicly accessible internet site in accordance with 40 CFR 257.80(a), 257.105(g), and 257.107(g). SCDHEC is notified when this Plan, or any subsequent amended version, is placed in the Facility Operating Record and on the Dominion Energy internet site, in accordance with 40 CFR 257.106(g).

#### **5.2 Community Involvement**

DESC Cope Station through its parent corporation Dominion Energy has implemented procedures for community involvement, including “logging inquiry involving CCR fugitive dust management at the facility,” as required by 40 CFR 257.80 (b)(3). The Dominion Energy publicly accessible internet site provides contact information for the public to contact DESC with questions regarding dust management at CCR Units managed by the Company. DESC Customer Service will log and transfer inquiries to corporate staff that will coordinate response actions. Documentation of inquiry, response, and any derivative actions will be recorded and included in the annual Dust Control Report.

#### **5.3 Annual Reporting**

DESC Cope Station prepares annual dust control reports in accordance with 40 CFR 257.80(c) to document the following information:

- Description of dust control procedures implemented at the following CCR Units:
  - Class III Landfill (LF 3-00028)

- Summary of any concerns raised by stakeholders
- Description of any corrective actions taken

The first Annual Dust Control Report will be completed on or before 14 months after the October 19, 2015 initial placement of the Plan in the Facilities Operating Record. Subsequent Annual Dust Control Reports will be completed by December 19<sup>th</sup> of each calendar year thereafter. Each Annual Dust Control Report is completed and placed in the Facility operating record and on the Dominion Energy internet site, as required by 40 CFR 257.80(c), 257.105(g), and 257.107(g), within the specified timeframes. SCDHEC is notified when each Annual Dust Control Report has been placed in the Facility operating record and on the Dominion Energy internet site, in accordance with 40 CFR 257.106(g).

#### **5.4 CCR Fugitive Dust Control Plan Assessment and Update Process**

DESC Cope Station periodically assesses the effectiveness of this Plan in accordance with 40 CFR 257.80(b). The Plan is reviewed at least once every five years from the date of the last review for adherence to the requirements of 40 CFR 257. If more effective prevention and control technology has been field-proven at the time of the review and will significantly improve dust controls, the Plan will be amended to reflect changes. The amended Plan will be implemented within six months of its completion. The designated person accountable for dust control at the Facility is responsible for documenting completion of each five-year review, signing a statement as to whether the Plan is amended. Technical changes made to this Plan will be certified by a qualified Professional Engineer as required by 40 CFR 257.80(b).

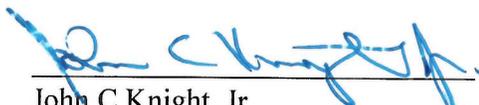
DESC Cope Station will also amend this Plan in accordance with 40 CFR 257.80(b) whenever there is a change in conditions that would substantially affect the written Plan in effect, such as the construction and operation of a new CCR unit. The amended Plan will be implemented before or concurrently with the initial receipt of CCR into any new CCR unit(s). Technical changes made to this Plan will be certified by a qualified Professional Engineer as required by 40 CFR 257.80(b).

SCDHEC will be notified in accordance with 40 CFR 257.106(g) when this Plan has been amended and placed in the Facility operating record and on the Dominion Energy internet site.

**SECTION 6**

**FACILITY APPROVAL**

This statement is the written commitment of the DESC Cope Station management to provide the resources required to effectively minimize the potential for CCR becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities. This CCR Fugitive Dust Control Plan will be fully implemented as herein described, and the Plan will be maintained in the Facility's operating record and on the DESC publicly accessible internet site.

  
Name: John C Knight, Jr  
Title: Plant Manager, DESC Cope Station

1-17-2020  
Date

Date of full implementation: 1-14-2020

Management Initials: JCK

**SECTION 7**

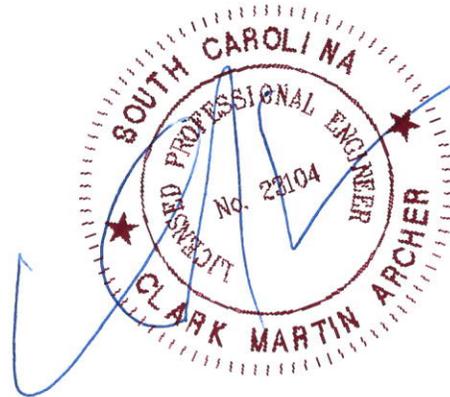
**ENGINEERING CERTIFICATION**

Pursuant to 40 CFR 257.80 and by means of this certification, I attest that:

- (i) I am familiar with the requirements of the CCR Rule (40 CFR 257);
- (ii) I, or my agent, have visited and examined the DESC Wateree Station;
- (iii) The CCR Fugitive Dust Control Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the CCR Rule; and
- (iv) The CCR Fugitive Dust Control Plan meets the requirements of 40 CFR 257.80

CLARK M. ARCHER

Printed Name of Qualified Professional Engineer



Signature of Qualified Professional Engineer

Registration/License No. 23104 State: SC