

Fugitive Dust Control Plan

for compliance with

**40 CFR 257: Disposal of Coal Combustion Residuals
(CCR) from Electric Utilities**

CCR UNITS:

(located at Cross Generating Station)

Bottom Ash Pond

Class 3 Landfill

FUGITIVE DUST CONTROL PLAN REVISION COPY AND CONTROL		
Revision Number	Revision Date	Description
0	09/2015	Original to meet the requirements of 40 CFR 257 Coal Combustion Residuals (CCR) Rulemaking
1	12/2016	Removal of Class 2 Landfill from the Plan due to closure of the Class 2 landfill. Removal of the Gypsum Pond from the Plan due to removal of all CCR from the Gypsum Pond.
2	10/2018	Minor Update to Bottom Ash Pond – temporary gypsum stockpiles
3	06/2024	Updates describing CCR Units and control measures added to Section 2. PE Certification page updated and Figure 1 added.
4	09/2024	Minor Update to Section 3.
Distribution List		
Santee Cooper Air Quality		Electronic Copy
Cross Generating Station Technical Services Superintendent		Electronic Copy

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PROFESSIONAL ENGINEER CERTIFICATION

In accordance with 40 CFR 257.80(b)(7), "The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of this section."

I hereby certify and attest, having examined the facility and being familiar with the provisions of 40 CFR 257, that this Plan has been prepared in accordance with good engineering practices.

Signature of Registered Engineer: *Evan Caudill*

Printed Name of Registered Engineer: Evan Caudill

Registration Number: 42174

State of South Carolina

Date: 9/30/2024

SEAL



SECTION 1: INTRODUCTION

Coal Combustion Residual (CCR) Units located at Cross Generating Station (CGS) are subject to 40 CFR 257 Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments. The CCR Units at CGS have been identified as the Bottom Ash Pond and the on-site Class 3 Landfill. The CCR Units are described in further detail in Section 2. Per § 257.80 of the above regulation, the owner or operator of the CCR Unit(s) are required to adopt measures that effectively minimize CCR from becoming airborne at the facility, and prepare and operate in accordance with a CCR Fugitive Dust Control Plan as specified below:

- (1) The CCR Fugitive Dust Control Plan must identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. The owner or operator must select and include in the CCR Fugitive Dust Control Plan the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions.
- (2) If the owner or operator operates a CCR Landfill or any lateral expansion of a CCR Landfill, the CCR Fugitive Dust Control Plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.
- (3) The CCR Fugitive Dust Control Plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.
- (4) The CCR Fugitive Dust Control Plan must include a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan.
- (5) The owner or operator of a CCR unit must prepare an initial CCR Fugitive Dust Control Plan for the facility 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. The owner or operator has completed the initial CCR Fugitive Dust Control Plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(1).
- (6) The owner or operator of a CCR unit subject to the requirements of this section may amend the written CCR Fugitive Dust Control Plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(1). The owner or operator must amend the written plan 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.
- (7) The owner or operator must obtain a certification from a qualified Professional Engineer that the initial CCR Fugitive Dust Control Plan, or any subsequent amendment of it, meets the requirements of this section.

SECTION 2: FUGITIVE DUST SOURCES AND CONTROL MEASURES

The two (2) CCR Units identified in Table 1 generate fugitive emissions from excavating, screening, wind erosion, temporary stockpiling, hauling, placement, and compaction. See Appendix 1 for a site map detailing CGS CCR Units.

CCR UNIT 1: BOTTOM ASH POND

CCR material is being reclaimed from the Bottom Ash Pond by screening and piling excavated material into stockpiles. The stockpiled material is then loaded into haul trucks, prior to transport to the on-site Class 3 Landfill. Fugitive dust generated during excavation, screening, and wind erosion from stockpiling is minimal due to the moisture content of the CCR being reclaimed. Most of the fugitive emissions generated during the reclamation process are from the unpaved roads found in and around the Bottom Ash Pond where CCR is being excavated.

Several fugitive dust control techniques are mentioned in *U.S. EPA AP-42, Fifth Edition, Volume 1, Chapter 13: Miscellaneous Sources* for the processes described above. These include chemical stabilization, reduction of surface wind speed with source enclosures, haul road pavement, and water suppression. Chemical stabilization was not considered due to potential contamination of plant and animal life near and in the Bottom Ash Pond area. Likewise, source enclosure and the pavement of haul roads in and around the Bottom Ash Pond are impractical due to the size of the impacted area. The most common and least expensive method of fugitive dust control for this Unit is wet suppression using water.

Visual observations are conducted to determine if dust control measures are needed. If excess dust is visible, CGS personnel will take action to minimize dust by dispatching on-site water trucks for wet suppression to minimize dust as needed.

CCR UNIT 2: CLASS 3 LANDFILL

CCR material reclaimed from Bottom Ash Pond is hauled to the on-site Class 3 Landfill where it is placed into active cells. After placement, the material is spread and compacted according to specific landfill compaction specifications. The process of landfilling CCR material generates fugitive emissions, while hot, dry weather conditions can lead to excessive fugitive emissions during the processes described above.

Due to the nature of landfill operations, wet suppression using water is the best management practice for reducing fugitive emissions, as it also aids in material compaction. As mentioned in the previous section, source enclosure and the pavement of haul roads in and around the landfill are impractical. Landfill operators dispatch dedicated on-site water trucks for wet suppression to minimize fugitive dust hourly during landfill operating hours.

When active landfill cells are filled completely, dust is controlled by establishing vegetative cover on final cover slopes and the placement of interim cover. When landfill cells will not be active for extended periods of time, the moisture levels in the cell will be managed using wet suppression.

ADDITIONAL FUGITIVE DUST CONTROLS

CGS employs additional adjusted work practices to reduce the generation of fugitive dust at both CCR Units. On high wind days, excavation and screening in the Bottom Ash Pond is reduced to limit the amount of fugitive dust generated. Vehicle traffic is restricted in active areas of the Bottom Ash Pond and Class 3 Landfill to heavy equipment used to excavate, haul, place, and compact CCR material. In addition, adherence to the facility's speed limit of 15 miles per hour is expected for all heavy equipment operators transporting CCR material.

TABLE 1: LIST OF CCR UNITS

CCR Unit(s)	Description	Control Measures	Explanation of applicable and appropriate control measures
Bottom Ash Pond	Excavating, Screening, Wind Erosion, Haul Roads, Temporary Stockpiles	Water Truck, Stockpile Tarps	CCR material is being excavated from the Bottom Ash Pond, screened, piled and hauled. There is little potential for fugitive emissions due to the moisture content of the pond. If CCR material is being excavated for beneficial reuse, that material is temporarily stockpiled and can be tarped, if necessary. Plant staff make daily determinations to dispatch water trucks to minimize fugitive dust.
Class 3 Landfill	Haul Roads, Placement, Compaction	Water Truck, Vegetative Cover	Fugitive dust is controlled in landfill areas by establishing vegetative cover on final cover slopes and by placing interim cover or managing moisture levels on areas that will not be active for extended periods of time. Plant staff make daily determinations to dispatch water trucks as necessary to minimize fugitive dust.

CONDITIONED CCR PROCEDURES

Conditioning of CCR applies to CCR Landfills and lateral expansions of CCR Landfills. Water will be applied to the working surface to condition the material and suppress dust, as necessary. The working face will be controlled and minimized in size. Throughout CCR placement, the

working surface will be continuously graded to ensure even distribution of water to prevent stagnant water from collecting.

SECTION 3: CITIZEN COMPLAINT PROCEDURES

In accordance with 40 CFR 257.80(b)(3), "The CCR Fugitive Dust Control Plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility."

All citizen complaints pertaining to CCR fugitive dust events received by Santee Cooper employees should be directed to Environmental Services to be handled in accordance with the Corporate Environmental Incident Policy. In addition, citizen complaints pertaining to CCR fugitive dust events may also be reported via Santee Cooper's Anonymous Hotline. The hotline is available to Santee Cooper employees, Santee Cooper customers and members of the public by calling 888-350-0003. Reporting is available seven (7) days per week, 24 hours per day. The Anonymous Hotline Review Committee will communicate all complaints associated with fugitive dust emissions to the appropriate Santee Cooper personnel. All citizen complaints received by Santee Cooper involving CCR fugitive dust events at the facility will be summarized in the Annual CCR Fugitive Dust Report and include any corrective measures taken.

SECTION 4: PERIODIC EFFECTIVENESS ASSESSMENT

ROUTINE OPERATIONAL ASSESSMENTS

CGS personnel perform routine observations of the CCR Units. A visual observation is conducted to determine if dust control measures are adequate. If excess dust is visible, the inspector will take action to minimize dust (e.g., increasing water application, implementing operating changes, or potentially ceasing operations if deemed necessary).

ANNUAL ASSESSMENTS

This Fugitive Dust Control Plan will be reviewed annually by the Technical Services Superintendent to assess the effectiveness of the procedures and prepare the annual CCR Fugitive Dust Control Report. This evaluation will consist of the following:

- Review of Fugitive Dust Control Plan to ensure an accurate and up-to-date inventory of fugitive dust sources and control measures,
- Review Citizen Complaint's and Corrective Measures,
- Document the findings of the evaluation and make the necessary revisions to amend the plan, and
- Obtain a Professional Engineer certification as required.

SECTION 5: RECORDKEEPING

Records of citizen complaints are logged through Santee Cooper's Anonymous Hotline Program as well as the Corporate Environmental Incident Policy.

Finally, the periodic effectiveness assessment and Annual CCR Fugitive Dust Control Report is prepared by the Superintendent of Technical Services. These reports are maintained in the Environmental Management Information System (EMIS). The Annual Report is also made available via the facility operating record and publicly available internet site. See Table 2 for a recordkeeping summary.

TABLE 2: RECORDKEEPING SUMMARY TABLE

Record	Location	Regulatory Reference
Citizen Complaints	Anonymous Hotline Records Environmental Incident Records	Not Applicable
CCR Fugitive Dust Control Plan	Operating Record and Public Website	40 CFR 257.105 & 257.107
Annual CCR Fugitive Dust Control Report	Operating Record and Public Website	40 CFR 257.105 & 257.107

SECTION 6: CCR RULE REPORTING

In accordance with 40 CFR 257.80(b)(7)(c), “The owner or operator of a CCR Unit must prepare an Annual CCR Fugitive Dust Control Report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial annual report must be completed no later than 14 months after placing the initial CCR Fugitive Dust Control Plan in the facility’s operating record. The deadline for completing a subsequent report is one year after the date of completing the previous report. For purposes of this paragraph (c), the owner or operator has completed the Annual CCR Fugitive Dust Control Report when the plan has been placed in the facility’s operating record as required by § 257.105(g)(2).”

The Superintendent of Technical Services is responsible for preparing the Annual CCR Fugitive Dust Control Report. This task will be administered through Santee Cooper’s Environmental Management Information System (EMIS).

APPENDIX 1: FACILITY MAP IDENTIFYING CCR UNITS

