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## Fugitive Dust Control Plan

### Halifax County Ash Monofill Halifax County, North Carolina

**APPROVED DOCUMENT**  
**Division of Waste Management**  
**Solid Waste Section**  
**Date June 3, 2016 By**



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Prepared for:

Halifax County Department of Public Utilities  
 Halifax, North Carolina



May 2016

Prepared by:

NC LIC. NO. C-0828 (ENGINEERING)

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# Fugitive Dust Control Plan

**Halifax County Ash Monofill  
Halifax County, North Carolina**

Prepared For:

**Halifax County Department of Public Utilities  
Halifax, North Carolina**

**S+G Project No. HALIFAX-8**



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Joan A. Smyth, P.G.  
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5/27/16

**May 2016**

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# Halifax County Ash Monofill Halifax County, North Carolina

## Fugitive Dust Control Plan

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## 1.0 INTRODUCTION

Halifax County owns and operates a lined monofill (ash monofill) for disposal of coal combustion residuals (CCR) at the County's landfill facility located at 921 Liles Road Littleton, North Carolina. The ash monofill is used for disposal of CCR generated solely from the Westmoreland Partners Roanoke Valley Energy Facility (ROVA) located in Weldon, North Carolina.

This document serves as the CCR Fugitive Dust Control Plan (Plan) for the ash monofill. This plan is intended to satisfy the air criteria requirements of the CCR regulations promulgated in 40 CFR Part 257.80. These regulations require Halifax County to adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units and other CCR management activities.

A site map showing the ash monofill as well as the northern portion of the landfill facility is provided as Figure 1.

### 1.1 Plan Requirements and Definitions

The CCR Regulations promulgated in 40 CFR Part 257 require the preparation, certification, and implementation of a Fugitive Dust Control Plan for all regulated CCR units and associated areas. The requirement to prepare and implement this Plan is applicable to owners and operators of CCR units covered under the Rule including:

- New and existing landfills;
- New and existing surface impoundments;
- CCR Units located off-site of the electric utilities' or independent power producer's facilities that receive CCR disposal; and
- Certain inactive CCR surface impoundments if the CCR unit still contains CCR and liquids.

The Plan contains specific terms that are defined as follows in 40 CFR Part 257.2, Definitions and associated Federal Registers as noted:

**Coal Combustion Residuals (CCR)** – 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 Pile** – means any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. Note: As stated in the CCR Rule Preamble, piles placed on the land and used as “temporary storage” to manage CCR on-site prior to disposal in a landfill or subsequent beneficial use are considered as a CCR landfill and subject to the requirements of the Rule (unless containerized or contained by some other method of preventing environmental exposure).

**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.

**Facility** – means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units.

**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 is located.

## **1.2 Management of the Plan**

Halifax County will periodically assess the effectiveness of this Plan through the following procedures and amend the Plan as appropriate:

- Halifax County personnel will log observations of fugitive dust emissions using the Visual Observation Record in **Appendix A**.
- Halifax County will record citizen complaints of fugitive dust emissions using the log in **Appendix B**.
- Halifax County personnel will review the visual observation records and any citizen complaints, which may indicate cause for additional or modified handling processes and/or dust control measures.
- Halifax County personnel will be responsible for periodically assessing the effectiveness of the Plan and involve their engineer as needed.

A completed copy of the Plan, certified by a qualified professional engineer, will be generated and placed in the Halifax County Landfill Operating Record. Halifax County will amend this plan in accordance with the requirements of 40 CFR Part 257.80(b)(6) whenever a change that will substantially affect this written Plan, such as construction and operation of a new CCR unit. Halifax County will amend this Plan whenever necessary and place a copy of the current updated Plan in the Operating Record in accordance with the Recordkeeping requirements of 40 CFR Part 257.105(g)(1).

An amended Plan will be certified by a qualified professional engineer as in accordance with 40 CFR Part 257.80(b)(7).

### **1.3 Reporting Requirements**

Halifax County will prepare an annual CCR fugitive dust control report that includes the following information:

- Descriptions of actions taken by Halifax County during the reporting year to control fugitive dust;
- A record of all citizen complaints received during the calendar year; and
- A summary of corrective measures taken in response to received citizen complaints.

Halifax County will complete the initial annual report in accordance with 40CFR Part 257.80(c).

### **1.4 Notification Requirements**

Halifax County will notify the State Director as required under 40CFR Part 257.106(g)(1) and (2) when the following documents are made available in the Operating Record:

- Initial and subsequent amendments to this Plan; and
- Annual CCR fugitive dust control reports.

These notifications will be made to the following individuals:

North Carolina Department of Environmental Quality (DEQ)  
Raleigh Central Office  
Division of Waste Management  
217 W. Jones Street  
Raleigh, NC 27603  
1646 Mail Service Center

Raleigh, NC 27699-1646  
Phone/Fax: (919) 707-8200

Mr. Michael Scott - Director  
Mr. Ed Mussler, P.E. – Permitting Branch Head  
Ms. Mary Whaley – Waste Management Specialist

### **1.5 Internet Posting Requirements**

Halifax County will post the following documents within 30 days of placing them in the Operating Record:

- Initial and subsequent amendments to this Plan; and
- Annual CCR fugitive dust control reports.

### **1.6 Compliance With Other Regulatory Requirements**

This Plan is designed to comply with the federal CCR fugitive dust control requirements found in 40CFR Part 257.80 and is not intended to incorporate procedures to fully comply with the requirements of any other regulation.

## **2.0 POTENTIAL SOURCES OF DUST AND CONTROL MEASURES**

The sole unit for disposal of CCR at this facility is the ash monofill as shown on **Figure 1**. CCR management methods and dust control measures are presented in **Table 1**. Examples of control measures that may be appropriate include: operating a water spray system, using wind barriers, compaction or vegetative covers, other spray-applied covers (i.e. Posi-Shell, or similar), establishing and enforcing vehicle speed limits, covering trucks that transport CCR, reducing or halting operations during high winds, or applying periodic cover. The use of water application will be dependent upon meteorological conditions and frequency of traffic.

### **2.1 Citizen Complaints and Response Measures**

Halifax County is dedicated to being a good steward to the environment and a good neighbor to the residents located around the facility. To that end, Halifax County will respond to any citizen complaints received. Each citizen complaint will be logged using the form included in **Appendix B** and a response will be implemented to remedy the issue that initiated the complaint. Each complaint will be recorded, addressed, and the completed form will be placed in the operating record.

### 3.0 PROFESSIONAL ENGINEER'S CERTIFICATION

40 CFR Part 257.80(b)(7) of the CCR regulations require that the Fugitive Dust Control Plan meets the requirements of the Rule. This certification is provided below:

*I hereby certify that I have reviewed the CCR unit management practices for the Halifax County Ash Monofill in Halifax County, North Carolina and being familiar with the provisions of 40 CFR Part 257.80, attest that this Fugitive Dust Control Plan has been prepared in accordance with good engineering practices.*

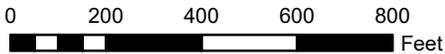
Pieter K. Scheer, P.E.  
Printed Name of Registered Professional Engineer



Signature of Registered Professional Engineer

May 26, 2016	21666	NC
Date	Registration No.	State

G:\CAD\Halifax-8\sheets\HALI-A0302.mxd



HALIFAX COUNTY ASH MONOFILL  
SITE MAP

NC LIC. NO. C-0828 (ENGINEERING)

**SMITH+GARDNER**

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DRAWN: C.T.J.	APPROVED: J.A.S.	SCALE: AS SHOWN	DATE: May, 2016	PROJECT NO.: HALIFAX-8	FIGURE NO.: 1
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Table 1  
 CCR Fugitive Dust Management and Control Measures

CCR Unit	CCR Materials Managed	Management Methods	Dust Control Measures
Ash Monofill	Fly Ash, Bottom Ash, Flue Gas Desulfurization (FGD) Residue, and Boiler Slag	1) CCR is transported to the site in covered or enclosed dump trucks.  2) CCR is emplaced in the monofill typically using tracked equipment.	1) Halifax County will ensure trucks are properly covered and closed.  2) Halifax County will conduct periodic visual observations for emission of wind-blown dust from the monofill and on roads and will use a water truck to apply water spray to areas where drying has caused apparent wind blown dust. Alternatively, other dust control measures may be utilized.  3) Halifax County will enforce reduced speed limits within the facility to reduce windblown dust.

## **Appendix A**

### **Visual Observation Record**

**Fugitive Dust Control Plan  
Halifax County Ash Monofill  
Halifax County, North Carolina**

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Halifax County Ash Monofill  
Visual Observation Record - Fugitive Dust Emissions

Date and Time Emission Observed:	
Person Observing Emission:	
Description of Emission:	
Area of Site Originating Emission:	
Corrective Actions Taken and Timetable:	
Follow Up Actions (if applicable):	

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## **Appendix B**

### **Citizen Complaint Log**

**Fugitive Dust Control Plan  
Halifax County Ash Monofill  
Halifax County, North Carolina**

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Halifax County Ash Monofill  
Citizen Complaint Log - Fugitive Dust Emissions

Date and Time Complaint Received:	
Person Receiving Complaint:	
Person Making Complaint:	
Description of Complaint:	
Area of Site Originating Complaint:	
Corrective Actions Taken and Timetable:	
Follow Up Actions (if applicable):	

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