



Submitted to  
Southern Indiana  
Gas & Electric Company  
dba Vectren Power  
Supply, Inc. (SIGECO)  
One Vectren Square  
Evansville, IN 47708

Submitted by  
AECOM  
9400 Amberglen Boulevard  
Austin, Texas 78729

April 18, 2017

CCR Certification:  
Fugitive Dust Control Plan  
§257.80 (b)  
for the  
West Ash Pond  
at the  
F. B. Culley Generating Station  
Revision 0

# Table of Contents

**Executive Summary**..... **ES-1**

**1 Introduction**..... **1-1**

    1.1 Purpose of this Report..... 1-1

    1.2 Brief Description of Impoundment ..... 1-2

**2 Fugitive Dust Control Plan**..... **2-1**

    2.1 Fugitive Dust Control Requirements..... 2-1

        2.1.1 Fugitive Dust Control Measures..... 2-1

        2.1.2 CCR Landfill ..... 2-2

        2.1.3 Documenting Citizen Complaints..... 2-2

        2.1.4 Assessment of Plan Effectiveness..... 2-2

        2.1.5 Plan Completion Timeframe..... 2-3

        2.1.6 Amendment of Plan ..... 2-3

    2.2 Annual Reporting ..... 2-3

    2.3 Recordkeeping, Notification, & Internet Requirements ..... 2-4

**3 Certification**..... **3-1**

**4 Limitations**..... **4-1**

## Tables

**Table ES-1**      **Certification Summary**

**Table 1-1**      **CCR Rule Cross Reference Table**

**Table 2-1**      **CCR Fugitive Dust Control Measures**

## Executive Summary

This Coal Combustion Residuals (CCR) Fugitive Dust Control Plan for the West Ash Pond at the Southern Indiana Gas & Electric Company dba Vectren Power Supply, Inc., F. B. Culley Generating Station has been prepared in accordance with the requirements specified in the USEPA CCR Rule under 40 Code of Federal Regulations §257.80 (b) and within the timeframe of the USEPA Direct Final Rule (2016-18353), effective October 4, 2016. These regulations require that the fugitive dust control plan for an inactive CCR surface impoundment, complying with the Direct Final Rule requirements, be prepared by April 18, 2017.

This fugitive dust control plan for the West Ash Pond meets the regulatory requirements as summarized in **Table ES-1**.

Table ES-1 – Certification Summary				
Report Section	CCR Rule Reference	Requirement Summary	Requirement Met?	Comments
2.1	§257.80 (b)	<i>A CCR fugitive dust control plan must be prepared to identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility</i>	Yes	The fugitive dust control plan has been prepared in accordance with the required performance standards

# 1 Introduction

## 1.1 Purpose of this Report

The purpose of the fugitive dust control plan is to document that the requirements specified in 40 Code of Federal Regulations (CFR) §257.80 (b) have been met to support the certification required under each of the applicable regulatory provisions for the F. B. Culley Generating Station (Culley) West Ash Pond. The West Ash Pond was initially classified as an inactive surface impoundment as defined by 40 CFR §257.100. Closure of the West Ash Pond was initiated in accordance with these requirements, and thus exempting the West Ash Pond from all other requirements of the CCR Rule. However, on June 14, 2016, the United States Court of Appeals for the District of Columbia Circuit ordered the vacatur of the “early closure” provisions. In response to the vacatur, the USEPA took direct final action (2016-18353) to extend the compliance deadline for certain inactive CCR surface impoundments meeting the following requirements:

- 1) The owner or operator must have prepared and placed in the facility’s operating record by December 17, 2015, a notification of intent to initiate closure of the inactive CCR surface impoundment pursuant to §257.105 (i)(1).
- 2) The owner or operator must have provided notification to the State Director and/or appropriate Tribal authority by January 19, 2016, of the intent to initiate closure of the inactive surface impoundment pursuant to §257.106 (i)(1).
- 3) The owner or operator must have placed on its CCR Web site by January 19, 2016, the notification of intent to initiate closure of the inactive CCR surface impoundment pursuant to §257.107 (i)(1).

The West Ash Pond complies with the above requirements; thus, these regulations require that the fugitive dust control plan for the Culley West Pond be prepared by April 18, 2017.

**Table 1-1** summarizes the documentation required within the CCR Rule and the sections that specifically respond to those requirements of this plan.

**Table 1-1 – CCR Rule Cross Reference Table**

Report Section	Title	CCR Rule Reference
2.1.1	Fugitive Dust Control Measures	§257.80 (b)(1)
2.1.2	CCR Landfill	§257.80 (b)(2)
2.1.3	Documenting Citizen Complaints	§257.80 (b)(3)
2.1.4	Assessment of Plan Effectiveness	§257.80 (b)(4)
2.1.5	Plan Completion Timeframe	§257.80 (b)(5)
2.1.6	Amendment of Plan	§257.80 (b)(6)
2.2	Annual Reporting	§257.80 (c)
2.3	Recordkeeping, Notification, & Internet Requirements	§257.80 (d)
3.0	Certification	§257.80 (b)(7)

## 1.2 Brief Description of Impoundment

The Culley station is located in Warrick County, Indiana, southeast of Newburgh, Indiana, and is owned and operated by Southern Indiana Gas and Electric Company, dba Vectren Power Supply Inc. (SIGECO). The Culley station is located along the north bank of the Ohio River and the west bank of the Little Pigeon Creek along the southeast portion of the site. Culley has two CCR surface impoundments, identified as the West Ash Pond and the East Ash Pond. Only the East Ash Pond is actively receiving CCR materials. The West Ash Pond is located west of the coal storage pile and is approximately 33 acres in size.

The West Ash Pond was constructed in the 1950s by placing fill along the south, east and west sides, and tying into higher ground along the north side. The base elevation of the pond was set at an approximate elevation of 365 feet<sup>1</sup> but followed the natural topography and increased in elevation as the pond extended north. The original alignment of Little Pigeon Creek was through the footprint of the West Ash Pond but was re-routed east of the generating station at the time of the original construction. The surface impoundment contains an estimated 880,000 cubic yards (cy) of CCR and is not lined. Closure of the West Ash Pond was initiated in 2016. The elevation of the impoundment and retaining berms are approximately 390 feet and 394 feet, respectively. The

<sup>1</sup> Unless otherwise noted, all elevations in this report are in the NAVD88 datum.

impoundment measures approximately 1,400 feet by 1,150 feet. The crest of the south embankment is approximately 40 feet wide and covered with crushed stone. The exterior slope of the embankment varies from approximately 2.5 to 1 (horizontal to vertical) to approximately 1.9 to 1 (horizontal to vertical). The normal pool elevation is maintained at approximately 386 feet or below through evaporation or pumping station.

## 2 Fugitive Dust Control Plan

### 2.1 Fugitive Dust Control Requirements

*Regulatory Citation: 40 CFR §257.80 (b); CCR fugitive dust control plan.*

- *The owner or operator of the CCR unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in paragraph (b)(1) through (7) of this section. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.*

The fugitive dust control plan for the West Ash Pond is described in this section. Information about operational and maintenance procedures was provided by Culley plant personnel. The Culley station follows an established maintenance program that quickly identifies and resolves issues of concern.

#### 2.1.1 Fugitive Dust Control Measures

*Regulatory Citation: 40 CFR §257.80 (b);*

- *(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 elected are applicable and appropriate for site conditions.*

**Table 2-1** identifies CCR activities that could potentially generate fugitive dust and control measures that have been selected by the facility to minimize CCR from becoming airborne from within the CCR unit. As the West Ash Pond is no longer an operational CCR unit, the CCR material will not routinely be transported or handled. For this reason and based on unit operational experience, more-intensive fugitive dust control measures are not deemed necessary. In the event that inspections and/or operational observations indicate additional dust control measures are warranted, these revised or additional control measures will be incorporated into an amended fugitive dust plan, as needed.

Table 2-1 – CCR Fugitive Dust Control Options

Activity	Fugitive Dust Control Options	Applicability and Appropriateness of Control Measure
Management of CCR in the CCR Unit	Wet management of CCR bottom ash and fly ash	Minimizes the potential for CCR fugitive dust generation
	Watering areas of exposed CCR	Maintains the moisture content to minimize potential for CCR fugitive dust generation in excessively dry or windy conditions
	Maintaining grass vegetation in areas of exposed CCR	Provides a wind screen and/or cover and reduces wind entrainment of CCR

### 2.1.2 CCR Landfill

*Regulatory Citation: 40 CFR §257.80 (b);*

- (2) *If the owner or operator operates 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.*

Not applicable; The Culley facility does not have a CCR landfill.

### 2.1.3 Documenting Citizen Complaints

*Regulatory Citation: 40 CFR §257.80 (b);*

- (3) *The CCR fugitive dust control plan must include procedure to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility*

In the event the owner complaints regarding fugitive dust are received, those complaints will be logged, investigated, and responded to as appropriate. Complaints should be submitted to Vectren via e-mail to CCR\_Inquiries@Vectren.com.

### 2.1.4 Assessment of Plan Effectiveness

*Regulatory Citation: 40 CFR §257.80 (b);*

- (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.*

This fugitive dust control plan will be reviewed routinely to verify the effectiveness of the dust control measures. When a CCR fugitive dust event is observed or a citizen complaint involving a CCR fugitive dust event at the facility is received, the plan will be reviewed to evaluate whether the selected control measures are being properly implemented. If control measures are not being properly implemented, relevant operating personnel will be

notified and retrained, if necessary. Revised or additional control measures will be incorporated into an amended fugitive dust plan, as needed.

### 2.1.5 Plan Completion Timeframe

*Regulatory Citation: 40 CFR §257.80 (b);*

- *(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).*

The West Ash Pond was initially classified as an inactive surface impoundment as defined by 40 CFR §257.100. Closure of the West Ash Pond was initiated in accordance with these requirements, and thus exempting the West Ash Pond from all other requirements of the CCR Rule and the October 19, 2015 deadline. However, on June 14, 2016, the United States Court of Appeals for the District of Columbia Circuit ordered the vacatur of the "early closure" provisions. In response to the vacatur, the USEPA took direct final action (2016-18353) to extend the compliance deadline for certain inactive CCR surface impoundments. These regulations require that the fugitive dust control plan for an inactive CCR surface impoundment, for which the owner or operator has completed the actions stipulated in the USEPA Direct Final Rule (2016-18353), be prepared by April 18, 2017.

This fugitive dust control plan for the West Ash Pond was submitted to SIGECO on April 18, 2017.

### 2.1.6 Amendment of Plan

*Regulatory Citation: 40 CFR §257.80 (b);*

- *(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.*

This plan will be amended as needed, and the revised plan will be placed in the facility's operating record as required by §257.105 (g)(1).

## 2.2 Annual Reporting

*Regulatory Citation: 40 CFR §257.80 (c); Annual CCR fugitive dust control report.*

- *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 the purpose 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 initial annual CCR fugitive dust control report, as required by §257.80 (c), will be prepared no later than 14 months after placing the initial CCR fugitive dust control plan in the facility's operating record. This report will

summarize the dust control measure used and any corrective measures taken to mitigate dust events and include documentation of all citizen complaints. All subsequent reports will be completed one year after the date of the previous report. The annual CCR fugitive dust control reports will be placed in the facility's operating record as required by §257.105 (g)(2).

### **2.3 Recordkeeping, Notification, & Internet Requirements**

*Regulatory Citation: 40 CFR §257.80 (d);*

- *The owner or operator of a CCR unit must comply with the recordkeeping requirements specified in §257.105 (g), the notification requirements specified in §257.106 (g), and the internet requirements specified in §257.107 (g).*

This CCR fugitive dust control plan, any subsequent amendment of the plan, and annual fugitive dust control reports will be placed in the facility's operating record as required by §257.105 (g) and on the website as required by §257.107 (g). SIGECO will notify the State Director and/or appropriate Tribal authority when the plan, any amendment of the plan, and annual fugitive dust control reports have been placed in the operating record and are available on the website as required by §257.106 (g).

### 3 Certification

This Certification Statement documents that the West Ash Pond at the F. B. Culley Generating Station meets the fugitive dust control plan requirements specified in 40 CFR §257.80 (b). The West Ash Pond is an existing CCR surface impoundment as defined by 40 CFR §257.53. The CCR Rule requires that the Fugitive Dust Control Plan for the existing CCR surface impoundment be prepared by April 18, 2017.

**CCR Unit:** Southern Indiana Gas & Electric Company; F. B. Culley Generating Station; West Ash Pond

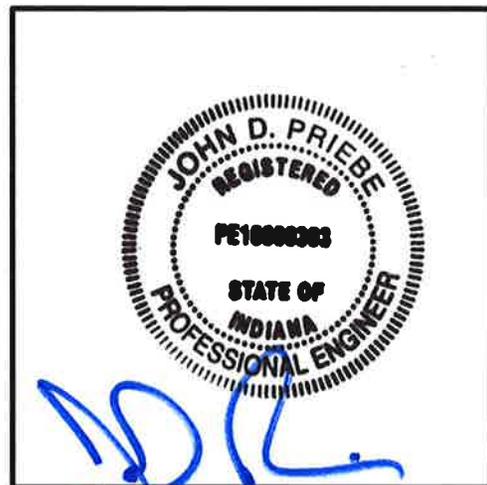
I, John Priebe, being a Registered Professional Engineer in good standing in the State of Indiana, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the fugitive dust control plan dated April 18, 2017 meets the requirements of 40 CFR §257.80 (b).

John D. Priebe

Printed Name

4/18/2017

Date



## 4 Limitations

Background information, design basis, and other data which AECOM has used in preparing this report have been furnished to AECOM by SIGECO. AECOM has relied on this information as furnished, and is not responsible for the accuracy of this information. Our recommendations are based on available information from previous and current investigations. These recommendations may be updated as future investigations are performed.

The conclusions presented in this report are intended only for the purpose, site location, and project indicated. The provisions and recommendations presented in this report should not be used for other projects or purposes. Conclusions or recommendations made from these data by others are their responsibility. The conclusions and recommendations are based on AECOM's understanding of current plant operations, maintenance, stormwater handling, and ash handling procedures at the station, as provided by SIGECO. Changes in any of these operations or procedures may invalidate the findings in this report until AECOM has had the opportunity to review the findings, and revise the report if necessary.

This development of the Fugitive Dust Control Plan was performed in accordance with the standard of care commonly used as state-of-practice in our profession. Specifically, our services have been performed in accordance with accepted principles and practices of the engineering profession. The conclusions presented in this report are professional opinions based on the indicated project criteria and data available at the time this report was prepared. Our services were provided in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representation is intended.

9400 Amberglen Boulevard  
Austin, Texas 78729  
1-512-454-4797

#### About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of \$6 billion.