



Muskegon Environmental Redevelopment Group, LLC B.C. Cobb Ash Pond Project

Muskegon, Michigan May 13, 2020

B.C. Cobb Ash Pond Project CCR Fugitive Dust Control Plan

Table of Contents

Revisio	n Log	1				
Profess	Professional Engineer Certification					
1 Intr	oduction	3				
1.1	Purpose	3				
1.2	Facility Background	4				
2 CC	R Fugitive Dust Control Measures	5				
2.1	Bottom Ash Pond and Ponds 0-8	5				
2.2	Roads	5				
2.3	Silica – Fugitive Dust Control	6				
3 CC	R Rule Monitoring and Recordkeeping Procedures	7				
3.1	Monitoring	7				
3.2	Recordkeeping	7				
3.3	Citizen Complaints	7				
3.4	Plan Assessments/Amendments	7				
3.5	Annual Reporting	8				

List of Tables

Attachments

Attachment 1:	Facility Site Map
Attachment 2:	Dust Control Monitoring Worksheet
Attachment 3:	Citizen Complaint Log
Attachment 4:	Citizen Complaint Form

B.C. Cobb Ash Pond Project CCR Fugitive Dust Control Plan

Revision Log

This coal combustion residuals (CCR) Fugitive Dust Control Plan may be revised from time to time when control measures or procedures are changed. Because revisions to this document can be made on a periodic basis, document control is necessary. The most recent version of this CCR Fugitive Dust Control Plan is required to be posted on the facility CCR website. The revision log below must be updated every time when this plan is amended.

Revision No.	Revision Date	Originator	Reason(s) for Revision
0	10/12/2015	Consumers	Original Edition
1	11/30/2016	Consumers	Updated for Site Decommissioning
2	10/20/2017	Consumers	Updated for annual audit, reduced monitoring during non-construction days, and personnel responsibility changes
3	12/3/2018	Consumers	Removed the Dry Fly Ash Handling system from references; updated FDPC appointment; updated Certifying Professional Engineer.
4	5/13/2020	HDR	Updated for MERG ownership, added figure, and best management practices pertaining to closure activities

Professional Engineer Certification

"I hereby certify that this CCR Fugitive Dust Control Plan for the Muskegon Environmental Redevelopment Group, LLC B.C. Cobb Ash Pond Project meets the requirements of the Coal Combustion Residual Rule promulgated under Title 40 Code of Federal Regulations (CFR) 257.80(b). I am a duly licensed Professional Engineer under the laws of the State of Michigan."

Print Name:	Lara Zawaideh-Syrocki, PE ENV SP
Signature:	Charl.
Date:	May 13, 2020
License #:	6201065363
My license rene	wal date is 10/31/2021

1 Introduction

On April 17, 2015 the U.S. Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR Rule) under Subtitle D of the Resource Conservation and Recovery Act (RCRA). The CCR Rule defines a set of requirements for the disposal and handling of coal combustion residuals (CCR) in landfills and surface impoundments. One of the operating criteria for air, Title 40 Code of Federal Regulations (CFR) §257.80(b), specifies that an owner or operator of a CCR landfill, surface impoundment, or lateral expansion of a CCR unit must develop a CCR Fugitive Dust Control Plan.

The Michigan Solid Waste Statute Part 115 324.11519a (2)(a) references the federal rule, and states:

(2) The owner or operator of an existing coal ash landfill or coal ash impoundment or a coal ash landfill or impoundment licensed under this part shall do all of the following:

(a) Maintain a fugitive dust control plan that complies with 40 CFR 257.80(b) and is certified by a registered professional engineer pursuant to R 299.4910(9) of the part 115 rules. An annual fugitive dust control report shall be prepared and completed in compliance with 40 CFR 257.80(c).

This plan is intended to meet Federal CCR and State requirements.

1.1 Purpose

The CCR Rule requires CCR landfills and CCR surface impoundments to develop a CCR Fugitive Dust Control Plan and adopt 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(a)). The plan must include:

- Identification of the CCR handling areas and control measures taken to minimize CCR fugitive dust at the facility
- Explanation of how dust control measures selected are applicable and appropriate for site conditions
- Emplacement of CCR in a landfill as conditioned CCR
- Procedures to log citizen complaints involving CCR fugitive dust events at the facility
- Description of procedures to periodically assess effectiveness of the control plan

The initial plan was completed and placed in the facility operating record on October 12, 2015. This subsequently amended plan will be certified by a qualified professional

engineer that the CCR Fugitive Dust Control Plan meets applicable requirements. This plan will be posted to the CCR Rule Compliance Data and Information internet site (CCR website) under the Muskegon Environmental Redevelopment Group, LLC, B.C. Cobb Ash Pond Project. A notification will be sent to the Michigan Department of Environment, Great Lakes & Energy of the availability of this CCR Fugitive Dust Control Plan in the operating record and on the CCR website.

The key definitions from the CCR Rule, 40 CFR §257.3, relative to CCR fugitive dust requirements are:

"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.

"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 operation units (e.g., one or more landfills, surface impoundments, or combinations of them).

"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.

"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.

1.2 Facility Background

The purpose of this Fugitive Dust Control Plan (FDCP) is to describe the measures adopted at the B.C. Cobb (BCC) ash pond property for minimizing fugitive dust emissions from coal combustion residuals (CCR). The former BCC power generation facility is located adjacent to the ash pond property at 151 Causeway in Muskegon Michigan and was a coal-fired electric generating power plant that ceased operation in April of 2016. Consumers Energy maintains ownership and applicable permits for the former power generation facility. The ash pond property was formerly owned by Consumers Energy and ownership has since transferred to the Muskegon Environmental Redevelopment Group, LLC (MERG), with Charah Solutions, Inc. (Charah) acting as the primary contractor responsible for removing the waste CCR by excavation and transportation off-site to close the Bottom Ash Pond and Ponds 0-8 by removal.

This plan has been developed in accordance with the coal combustion residual (CCR) regulations stipulated in 40 CFR Part 257.80; which requires the development and implementation of a CCR fugitive dust control plan. The Charah Site/Project Manager has been appointed as the site Fugitive Dust Plan Coordinator (FDPC) and is responsible for implementing the monitoring and recordkeeping requirements of this plan, ensuring that records are stored with Charah. The Charah Site/Project Manager is responsible for ensuring adequate resources are provided for controlling fugitive dust. This FDCP has been certified by a qualified professional engineer and is placed in the facility's CCR operating record and on the MERG website. A notification is sent to the Michigan Department of Environment, Great Lakes & Energy (EGLE-waste division) within 30 days of posting any revisions of this document to the website.

The CCR facility consists of the inactive Bottom Ash Pond and Ponds 0-8 and the surrounding road ways. The appropriate control activities selected for the site are based on good engineering practices, in part, that were developed in accordance with Michigan's Fugitive Dust Regulations under Act 451 of 1994, Rule 324.5524 and the Michigan Fugitive Dust Guidance Document (March 2014). The following sections outline the FDCP.

2 CCR Fugitive Dust Control Measures

Fugitive dust may result from the closure of the pond areas or site roads. A facility site map in Appendix A illustrates these areas of CCR handling. The potential CCR fugitive dust sources and dust control measures are summarized in Table 1.

2.1 Bottom Ash Pond and Ponds 0-8

The wet ash handling system, when in operation, consisted of a conveying system, the Bottom Ash Pond, and Ponds 0-8. CCR sluicing has ceased since the commencement of the decommissioning activities on April 15, 2016 and subsequent sale of the plant property. Only precipitation and run-off now feed these ponds. Ponds 0-8 remain in a mostly dewatered but wet and vegetative condition, thereby reducing the generation of fugitive dust.

2.2 Roads

Fugitive dust emissions may be generated from vehicles and other heavy equipment traveling on the site's unpaved roads and entering/exiting the site; however, since all CCR generation has ceased and there is limited activity in the storage areas, there are no longer CCR impacted roadways. When construction activities to close the ponds

begin, the roadways may again be impacted. As a means to minimize fugitive dust in general, some of the ash pond and perimeter roadways were covered with limestone and then a more coarse stone at the road exit to pavement for "tire scrubbing" to minimize track-out onto the paved roadway. Road wetting, chemical dust suppressants, and brine application are implemented as necessary to minimize fugitive emissions from truck travel on the site roadways. A water truck will be on site at all times and there is a site-wide speed limit of 15 mph to minimize fugitive dust generation.

2.3 Silica – Fugitive Dust Control

During the closure of the site, there may be a presence of silica containing materials and resultant dust (respirable crystalline silica), due to heavy equipment and utility vehicles grading and excavating the areas. To address this dust, Charah shall apply water and/or dust suppressants as necessary to minimize dust emissions, or, when the equipment operator is the only employee engaged in the task, they will operate equipment from within an enclosed cab (OSHA 29 CFR 1926.1153 (c)(1)).

In accordance with 29 CFR 1926.1153(c)(2), for measures implemented that include an enclosed cab or booth, the enclosed cab or booth will: (A) be maintained as free as practicable from settled dust; (B) have door seals and closing mechanisms that work properly; (C) have gaskets and seals that are in good condition and working properly; (D) be under positive pressure maintained through continuous delivery of fresh air; (E) have intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 μ m range (e.g., MERV-16 or better); and (F) have heating and cooling capabilities.

Facility Component or CCR Source	Fugitive Dust Controls Measures
	Site speed limit of 15-mph posted
Site Wide	 Water truck on-site for dust control from pond excavation and
	haul roads at all times
CCR Loadout from Ponds	 Loaded into dump trucks or trailers; when loading via drop methods (back hoe or front end loader) minimize distance between stockpile, bucket and trailer Minimize drop height of materials into vehicles Require loads to be covered prior to leaving site

Table 1 – CCR Fugitive Dust Sources and Control Measures

3 CCR Rule Monitoring and Recordkeeping Procedures

The CCR rule requires specific records and reporting for CCR fugitive dust control at facilities with CCR units. Charah, as the principle contractor for MERG, will take the lead on the procedures, reports, and recordkeeping for CCR fugitive dust as described in the following sections.

3.1 Monitoring

Monitoring frequency will remain weekly when no construction activity is occurring. Once construction activity that has the potential to cause fugitive dust emissions begins, two visual inspections are required for the CCR facilities and surrounding roads for each day that activity takes place. All monitoring, dust control methods, and any corresponding corrective action(s), as required, shall be documented on the Dust Control Monitoring Worksheet or a similar document.

Fugitive dust control techniques and/or activities (such as sealant application or road brining) which are used for any of the various site activities to control fugitive dust shall also be documented.

3.2 Recordkeeping

The following records will be retained for a period of at least five (5) years during the active life of the CCR units:

- All actions taken to control CCR fugitive dust
- Record of all citizen complaints
- Summary of any corrective measures taken

All annual reports will continue to be retained for a minimum of 5 years.

3.3 Citizen Complaints

All complaints, concerns and/or inquiries from the public, governmental agency, or interest group shall be documented in an external communications log, along with any corrective actions. Any complaint will be acted upon through internal communication procedures. Any complaint made to Charah and/or MERG shall be recorded in a complaint log along with any resultant action taken in response to the complaint. In accordance with the CCR regulation, the complaint log and any resultant actions will be summarized in the annual report.

3.4 Plan Assessments/Amendments

The FDCP will be audited once per year utilizing Charah Fugitive Dust internal guidance. The audit will be coordinated by Charah for the purposes of periodically





HOR B.C. COBB ASH POND PROJECT MERG, LLC

CCR FUGITIVE DUST CONTROL PLAN

FIGURE

5/5/2020



Attachment 2 Dust Control Monitoring Worksheet

DUST CONTROL MONITORING WORKSHEET

Year:

Month:

	s	ite Name:											
	Actively	working? ¹	Weather ^{2, 7, 8}		Method(s)	Used to Control Dus	st ³	*ls	dust	*ls er	osion	Preventative or Corrective Action Taken	
DATE		Yes/No	Temperature range, rainfall data, wind speeds, dry/damp,etc.	Currently Percipitating (Y/N)	Water Truck Active (Y/N)	Alternative Cover Material in Place	Other	prese Yes	ent? ⁴ No	prese Yes	nt? ⁵ No	Examples: Added more water, applied additional alternative cover material, contacted Plant DR, etc.*	Initials
1	AM												
2	PM AM												
	PM												
3	AM												
4	PM AM												
•	PM												
5	AM												
6	PM AM												
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Actively working indicates several factors at the site.

Actively working indicates several factors at the site.
 Actively working indicates several factors at the site.
 YES: indicates the waste cell is not operational, no maintenance work or equipment is operational on the day of inspection
 No: indicates the waste cell is not operational, no maintenance work or equipment movement is occurring on the day of inspection.
 Weather data should be secured from the weather station that is operating at the job trailer. Take readings from the display panel just before the inspection is conducted and make a note of it for the time and date the inspection is being performed.
 If the weather station is inspection, observed conditions should be entered with a note that the weather station was inoperable.
 Indicate actual method actively being utilized for dust control and frequency if applicable. (ie: EcoUltimate in place, EcoUltimate applied in am, water truck running, rainfall sufficient for moisture, etc)

4. Is dust present?

4. Is dust present?
 YES: indicates that dust is visible at time of inspection. If yes is indicated, there should be preventative/corrective action noted.
 NO: indicates that dust is visible at the time of inspection.
 S.Is erosion present?:
 YES: indicates rosion (or new erosion) is present at the time of inspection.
 If yes is indicated, there should be preventative/corrective action noted.(existing erosion should be noted as corrective action until complete)
 NO: indicates that no erosion is present at the time of inspection.
 If yes is indicated, there should be preventative/corrective action noted.(existing erosion should be noted as corrective action until complete)
 NO: indicates that no erosion is present at the time of inspection.
 Has two lines for input data. The morning inspection is to be placed in the top row for that date and the afternoon inspection results should be placed in the second.
 7. Make sure all data placed in the inspection port above, lines up with any other daily reports you may be completing for your operations, such as erosion and sediment control inspection forms, waste acceptance forms, daily reports and/or logs, etc.
 8. Reference the erosion and sediment control inspection forms for rainfall event totals.

6. Each date



Attachment 3 Citizen Complaint Log

CITIZEN COMPLAINT LOG

Site Name: _____

DATE	COMPLAINT RECORD NUMBER	DESCRIPTION OF COMPLIANT



Attachment 4 Citizen Complaint Form

CITIZEN COMPLAINT FORM

Site Name:	-
Record Number:	
Date/Time:	
Received By:	
Name:	
Address:	-
-	
Phone number/email:	
Nature of complaint:	
-	
-	
-	
Time of complaint/weather	
at that time:	
-	
Suspected dust	
source/location:	
-	
Action Takan (if and)	
Action Taken (if any):	-
-	-
1	