

# CCR Fugitive Dust Control Plan

for

## Miami Fort Power Station

*Prepared for:*



**Dynegy Miami Fort, LLC**

**Miami Fort Power Station  
11021 Brower Road  
North Bend, OH 45052**

*Prepared by:*

**AECOM**

October 2015

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# 1 Introduction

This Coal Combustion Residuals (CCR) fugitive dust control plan has been prepared for the Miami Fort Power Station, located in Hamilton County, Ohio. This plan addresses the 40 CFR 257.80 air operating criteria of the United States Environmental Protection Agency's CCR rule, which requires the owner or operator of a CCR unit to adopt measures that will effectively minimize CCR from becoming airborne at the facility and to prepare and operate in accordance with a CCR fugitive dust control plan.

## 1.1 Facility Information

- Facility Name: Miami Fort Power Station
- Facility Address: 11021 Brower Road, North Bend, OH 45052
- Operator: Dynegy Miami Fort, LLC

## 1.2 Certification

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 40 CFR 257.80.

I certify under penalty of law that, to the best of my knowledge, this plan meets the requirements of 40 CFR 257.80. This certification is based on my review of the document and conditions at the site and on my inquiry of the person or persons who managed the preparation of this document.

Peter J. Kroll

Printed Name of Qualified Professional Engineer

*Peter J. Kroll* 10/9/15

Signature of Qualified Professional Engineer and Date



E-61248, Ohio

Registration Number and State

## 2 CCR Fugitive Dust Control Measures and Appropriateness

CCR fugitive dust has the potential to become airborne at the facility during periods of CCR management in the CCR units, CCR handling and CCR transport. Areas at the facility that have the potential for airborne CCR fugitive dust are CCR surface impoundments, a CCR landfill, CCR handling equipment and CCR transport in trucks. This section identifies and describes the control measures selected and adopted by the facility to minimize CCR from becoming airborne at the facility and explains how the selected measures are applicable and appropriate for site conditions. The control measures may be adjusted or modified based on observed effectiveness of minimizing CCR from becoming airborne and weather conditions.

### 2.1 Management of CCR in the CCR Units

The facility manages CCR in surface impoundments at the facility and landfill located approximately 3 miles northeast of the power station. Table 2-1 below identifies CCR fugitive dust control measures that have been selected for use by the facility during CCR management in the CCR units, including placement of CCR into the CCR units, and explains how the selected measures are applicable and appropriate for site conditions. The facility will use the identified measures during CCR management in the CCR units to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Management of CCR in the facility's CCR units	CCR to be emplaced in the landfill is conditioned before loading into vehicles for transport to the landfill.	Conditioning CCR to be placed in the landfill allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation when CCR is managed in the landfill. The added moisture content will prevent wind dispersal of the CCR, but will not result in free liquids.
	Wet management of CCR bottom ash and flue gas desulfurization materials in CCR surface impoundments.	Wet management of CCR minimizes the potential for CCR fugitive dust generation.
	Water areas of exposed CCR in CCR units, as necessary.	Water will be applied to areas of exposed CCR to maintain moisture content to minimize the potential for CCR fugitive dust generation in excessively dry or windy conditions.
	Plant vegetation on the surface of filled deposited areas of the CCR surface impoundments, as necessary.	Vegetation provides a wind screen and/or cover and reduces wind entrainment of CCR.

Table 2-1. Control Measures for CCR Management in CCR Units

## 2.2 Handling of CCR

CCR is regularly removed from the boiler system and conveyed to the CCR handling system, which includes silos and truck loading areas. CCR fly ash and/or CCR bottom ash is pneumatically conveyed in an enclosed system from the boiler system to storage silos. CCR bottom ash and flue gas desulfurization materials are wet sluiced into CCR surface impoundments. CCR fly ash can also be wet sluiced into CCR surface impoundments. When unloading the CCR fly ash silos for transport to and emplacement in the CCR landfill, the CCR fly ash and CCR bottom ash is conditioned as it is loaded into trucks. Bottom ash is periodically removed from the CCR surface impoundments and remains sufficiently wet during and after handling activities, including dewatering, associated with transfer of the CCR. Table 2-2 below identifies CCR fugitive dust control measures that have been selected for use by the facility during handling of CCR and explains how the selected measures are applicable and appropriate for site conditions. The facility will use the identified measures when handling CCR to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Handling of CCR at the facility	Wet sluice CCR bottom ash, fly ash and flue gas desulfurization materials to CCR surface impoundments.	Wet sluicing CCR minimizes the potential for CCR fugitive dust generation.
	CCR bottom ash removed from CCR surface impoundments and loaded into trucks for transport remains conditioned during handling.	Conditioned CCR allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation when CCR is handled.
	Pneumatically convey dry CCR fly ash and/or dry CCR bottom ash to storage silos in an enclosed system.	Conveying dry CCR fly ash and/or dry CCR bottom ash in an enclosed system minimizes the potential for CCR fugitive dust generation.
	At the CCR dry ash storage silos, sufficiently wet CCR fly ash and CCR bottom ash to be transported to the on-site surface impoundments with enough water to keep material moist during unloading into CCR units.	Conditioning allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation while unloading CCR into CCR units.
	At the CCR dry ash storage silos, sufficiently wet CCR fly ash and CCR bottom ash to reduce CCR fugitive dust emissions during truck loading.	Conditioning allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation while loading CCR into trucks.
	CCR fly ash to be emplaced in the landfill is conditioned before loading into trucks for transport to the landfill.	Conditioning allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation while loading CCR into trucks (and during transport and emplacement in the landfill).
	During loading of CCR fly ash from the ash storage silos use a fly ash mixer with exhaust to a fabric filter. Partially enclose trucks and railcars during fly ash loading.	The use of engineered equipment, such as filters to capture dust particles during fly ash loading, minimizes the potential for CCR fugitive dust generation. Partial enclosure of the CCR load in and load out area reduces the potential for wind to cause CCR fugitive dust to become airborne.
	Conduct load in and load out of CCR flue gas desulfurization materials in a partial or full enclosure, or add water, as necessary.	Partial or full enclosure of the CCR load in and load out area reduces the potential for wind to cause CCR fugitive dust to become airborne. Wetting CCR allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation when CCR is handled
	Conduct load in of CCR flue gas desulfurization material using a combination of telescoping chute, maintaining material moisture content, partial enclosure and full enclosure.	Use of a telescoping chute reduces the drop height from the end of the chute into the pile and minimizes the potential for CCR fugitive dust to become airborne. Load in of CCR flue gas desulfurization material to a partially or fully enclosed system minimizes the potential for CCR fugitive dust generation.

	Perform housekeeping, as necessary, in the CCR loading area.	Good housekeeping measures, such as sweeping or wetting the loading area, minimize the potential for CCR fugitive dust generation during handling activities.
	Perform housekeeping, as necessary, around the CCR material storage buildings.	Good housekeeping measures, such as sweeping or wetting the loading area, minimize the potential for CCR fugitive dust generation during handling activities.
	Operate CCR handling systems in accordance with good operating practices.	Operation in accordance with good operating practices minimizes the potential for CCR fugitive dust generation.
	Maintain and repair, as necessary, dust controls on CCR handling systems.	Maintenance and repairs are performed as needed to maintain dust controls in good operating condition to minimize the potential for CCR fugitive dust generation.

Table 2-2. Control Measures for Handling CCR

**2.2.1 Conditioning of CCR Prior to Emplacement in CCR Landfill**

Conditioned CCR is CCR that has been wetted with water or an appropriate chemical dust suppressant. Water or a chemical dust suppressant is added to raise the moisture content of the CCR to prevent wind dispersal but will not result in free liquids. Conditioning allows for the CCR to bind together, which minimizes the potential for CCR fugitive dust.

All CCR generated on site that is placed into the facility's landfills is conditioned in a mixer or otherwise conditioned prior to loading into trucks for transport to the landfill. Therefore, all CCR that is added to the facility's landfill is emplaced in the landfill as conditioned CCR.

### 2.3 Transportation of CCR

CCR is transported via truck at the facility using a combination of paved and unpaved facility roads. Table 2-3 below identifies CCR fugitive dust control measures that have been selected for use by the facility during transport of CCR. The facility will use the identified measures when transporting CCR to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Transportation of CCR at the facility	CCR to be emplaced in the landfill is conditioned before loading into vehicles for transport to the landfill.	Conditioning CCR increases moisture content of the CCR and minimizes the potential for CCR fugitive dust generation during CCR transport (and emplacement in the landfill).
	Cover or enclose trucks used to transport CCR, as necessary.	Covering or enclosing trucks transporting CCR on facility roads minimizes the potential for CCR fugitive dust generation from the CCR transport trucks.
	Limit the speed of vehicles to no more than 15 mph on facility roads, and 10 mph on landfill roads.	Limiting the speed of vehicles traveling on facility and landfill roads minimizes the potential for CCR fugitive dust generation from the CCR transport trucks.
	Sweep or rinse off the outside of the trucks transporting CCR, as necessary.	Removing CCR present on the outside of the truck minimizes the potential for movement of the truck or wind to cause CCR fugitive dust to become airborne.
	Remove CCR, as necessary, deposited on facility paved road surfaces during transport.	Removing CCR deposited on facility paved road surfaces as a result of transport minimizes the potential for CCR fugitive dust generation from vehicle traffic.
	Treat paved and unpaved roads with water, as necessary.	Watering CCR haul roads will minimize the potential for CCR fugitive dust generation in excessively dry or windy conditions.

Table 2-3. Control Measures for Transportation of CCR

### 3 Procedures for Periodic Assessment of the Plan

The facility conducts inspections associated with CCR fugitive dust control. The facility also uses the procedures identified in Section 5 of this plan to log citizen complaints involving CCR fugitive dust events at the facility. These inspections and the investigations of citizen complaints will be used to periodically assess the effectiveness of the CCR fugitive dust control plan.

The facility routinely performs inspections to verify the effectiveness of the CCR fugitive dust control measures used at the facility. Inspections are conducted during daylight working hours and include observing for the presence of CCR fugitive dust emissions from vehicles transporting CCR on facility roads, CCR handling and CCR management, including CCR placement in CCR units. Inspection records include information such as the name of the person conducting the inspection, the date and time of the inspection, the results of the inspection, and any corrective action taken.

When a CCR fugitive dust event is observed or a citizen complaint involving a CCR fugitive dust event at the facility is received, current CCR management practices will be reviewed to see that the selected control measures are being properly implemented. If the control measures are not being properly implemented, relevant operating personnel will be notified and, as warranted, re-trained in the proper implementation of CCR fugitive dust control measures. If appropriate, use of revised and/or additional control measures will be evaluated. As warranted, revised and/or additional control measures found to be applicable and appropriate to control CCR fugitive dust emissions will be incorporated into an amended CCR fugitive dust control plan.

The plan also will be reassessed in the event of material changes in site conditions potentially resulting in CCR fugitive dust becoming airborne at the facility.

## 4 Recordkeeping, Notification, Internet Site

The written CCR fugitive dust control plan, any amendment of the written plan, and the annual CCR fugitive dust control report required by 40 CFR 257.80(c) will be placed in the facility's written operating record and posted to the Internet site in accordance with 40 CFR 257.105(g) and 257.107(g). Notification of the availability of the CCR fugitive dust control plan, any amendment of the plan, and the annual CCR fugitive dust control report will be provided to the State Director in accordance with 40 CFR 257.106(g).

## 5 Procedures to Log Citizen Complaints

In the event the owner or operator of the facility receives a citizen complaint involving a CCR fugitive dust event at the facility, relevant information about the complaint will be logged. Information that will be recorded includes, as applicable:

- Date/Time the complaint is received
- Date/Time and duration of the CCR fugitive dust event
- Description of the nature of the CCR fugitive dust event
- Name of the citizen entering the complaint
- Address & phone number of citizen entering the complaint
- Name of the personnel who took the complaint

All citizen complaints involving CCR fugitive dust events at the facility will be investigated promptly. As deemed appropriate or necessary, corrective measures will be taken and a follow-up response will be provided to the complainant.

## 6 Regulatory Cross Reference

40 CFR 257 Citation	Regulatory Requirement	CCR Fugitive Dust Control Plan Section
.80(b)(1)	Identify and describe CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. Explanation of how the CCR fugitive dust control measures selected are applicable and appropriate for site conditions.	2
.80(b)(2)	Procedures to emplace CCR into landfill as conditioned CCR.	2.2.1
.80(b)(3)	Procedures to log citizen complaints involving CCR fugitive dust events at the facility.	5
.80(b)(4)	Periodic assessment of effectiveness of CCR Fugitive Dust Control Plan.	3
.80(b)(5)	Date of initial CCR Fugitive Dust Control Plan.	7
.80(b)(6)	Amendment of CCR Fugitive Dust Control Plan.	7
.80(b)(7)	Certification of CCR Fugitive Dust Control Plan.	1.2

Table 6-1. CCR Fugitive Dust Control Plan Regulatory Cross Reference

## 7 Amendments

The written CCR fugitive dust control plan may be amended at any time provided that the revised plan is placed in the facility's operating record as required by 40 CFR 257.105(g)(1). The written CCR fugitive dust control plan must be amended whenever there is a change in conditions that would substantially affect the written plan in effect. The plan amendment log is presented as Table 7-1.

Amendment Number and Date	Pages or Section	Description of Amendment	Professional Engineer Certifying Plan
Version 0 October 2015	--	Initial Plan	Peter Kroll

Table 7-1. CCR Fugitive Dust Control Plan Amendments

