



# **CCR FUGITIVE DUST CONTROL PLAN**

## **Sibley Generating Station**

**33200 East Johnson Road, Sibley, Missouri 64088**

**January 03, 2024**

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## Revision History

Revision Number	Revision Date	Section Revised	Summary of Revisions
0	10/19/2015	N/A	Original Format
1	2/18/2021	All	Format Updated & Measures updated to reflect decommissioning
2	1/3/2024	2.0	Additional revisions to reflect decommissioning changes

## 1.0 Background

The purpose of this CCR Fugitive Dust Control Plan (Plan) is to identify and describe the Coal Combustion Residuals (CCR) fugitive dust control measures used to effectively minimize the potential for CCR to become airborne at the Sibley Generating Station (Sibley). The following sections provide background information on the facility, CCR, and related regulatory requirements.

### 1.1 Facility Information

Name of Facility:	Sibley Generating Station (Sibley)
Name of Operator:	Evergy Metro, Inc (Evergy)
Operator Mailing Address:	33200 East Johnson Road, Sibley, MO 64088
Location:	Approximately 4.5 miles north of Buckner, Missouri. East of and adjacent to Sibley, Missouri
Facility Description:	The Sibley Generating Station ceased operations in 2018. Historically, Sibley was a coal-fired electric generating station that contained three coal-fired units. CCR produced at the facility included fly ash and bottom ash as slag. CCR was managed in three CCR units, including the Slag Settling Impoundment, Fly Ash Impoundment, and CCR Landfill. Fly ash was collected and either pneumatically conveyed to a silo or sluiced to the Fly Ash Impoundment. Fly ash was off-loaded from the silo for beneficial use or conditioned and transported via truck to the landfill or placed in the Fly Ash Impoundment for conditioning. The bottom ash (slag) was, historically, sluiced to the Slag Settling Impoundment, and then moved by excavator to a concrete slab where it was loaded into trucks for beneficial use or transported to the landfill for disposal. The landfill is currently being used to dispose of coal remnants and de minimis quantities of CCR from the plant closure and is used to dispose CCR from other Evergy facilities in Missouri.

## 1.2 Coal Combustion Residuals

CCR materials are produced at coal-fired power plants when coal is burned to produce electricity. CCR materials are managed by coal-fired power plant sites, including on-site storage, processing (such as dewatering), and final disposal, typically in CCR landfills. Due to plant decommissioning activities, no CCR(s) are generated at the facility. CCRs disposed at the facility are a component of the plant closure process. These CCR(s) include fly ash, bottom ash, and flue gas desulfurization (FGD) materials. General characteristics of these CCR materials are described below.

- **Fly Ash** – Fly ash is captured from exhaust (flue) gases by emissions control equipment such as baghouses. Fly ash is characterized by clay-sized and silt-sized fine grain materials, consisting of silica, calcium, alumina, iron and trace heavy metals. Due to the small particle size and consistency, fly ash can often be mobilized by windy conditions when it is dry. Typically, the facility burns coal which generates fly ash with self-cementing properties in the presence of water. For this reason, a crust generally forms on its surfaces, reducing the potential for dust issues from fly ash storage areas.
- **FGD Materials** – FGD materials such as gypsum are produced by FGD emissions control systems, which are designed and operated to remove sulfur dioxide (SO<sub>2</sub>) from exhaust (flue) gases. FGD materials are generally produced as a wet sludge, which is then dewatered and managed as a dry material. Under certain conditions, FGD materials can form a crust on surfaces, reducing potential for dust issues from FGD storage areas.
- **Bottom Ash** – Bottom ash is characterized by sand-sized and gravel-sized materials, which settle by gravity to the bottom of a coal-fired furnace. Due to the heavier, larger-grained material, it is less prone to being mobilized under windy conditions when dry.

## 1.3 Regulatory Requirements

This plan has been developed for the Sibley Generating Station in accordance with 40 CFR 257.80(b). The CCR Rule requires preparation of a CCR Fugitive Dust Control Plan for facilities including CCR Landfills, CCR Surface Impoundments, and any lateral expansion of a CCR unit. Selected definitions from the CCR Rule are provided below.

- **CCR (coal combustion residuals)** 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 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.
- **CCR unit** means any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.
- **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.

The CCR Rule requires owners or operators of these CCR facilities to adopt and document “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). Owners/Operators of existing, active CCR unit were required to prepare a CCR Fugitive Dust Control Plan “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” (40 CFR 257.80 (b)(5)). Owners of inactive CCR surface impoundments must prepare a CCR Fugitive Dust Control Plan no later than April 18, 2017 (40 CFR 257.100 (e)(4)(i)). This plan has been developed to meet these requirements and is in addition to any other Occupational Safety and Health Act (OHSA) standards applicable to this facility.

## **2.0 CCR Fugitive Dust Source & Control Measures**

Potential CCR fugitive dust sources at the site generally include, loading, unloading, transportation in trucks or on conveyors, stockpiles, vehicle traffic, and landfill placement. These general sources are categorized for Sibley for the purposes of CCR fugitive dust management as follows:

- (1) CCR short-term storage and management areas;
- (2) CCR Landfill Units;
- (3) CCR Surface Impoundment Unit; and
- (4) Facility Roads

The Sibley Generating Station has implemented these dust control measures, which are applicable and appropriate for site conditions in accordance with 40 CFR 257.80(b)(1).

### **2.1 CCR Short-Term Storage and Management Areas**

The Sibley Generating Station no longer has any active temporary storage areas. All permanent and temporary structures associated with processing/management of CCR(s) have been removed as a part of the plant decommissioning process. Due to decommissioning activities, dust control measures that were historically employed at short-term storage and management areas have been discontinued.

### **2.2 CCR Landfill Units**

Due to plant decommissioning activities, CCR(s) are no longer generated at the Site. The only CCR(s) added to the landfill will include coal remnants from other Evergy facilities and those that are discovered as a part of the decommissioning process. All CCR(s) are conditioned before being placed into the landfill. Every haul series of ash is tested for percent moisture. A minimum of 10% moisture content is required for transport. Additional water may be added, as needed, to the CCR materials to reduce wind dispersal and improve compaction during CCR placement in landfill units.

The following additional dust control measures may also be implemented at the landfill.

- Water spray may be applied to the exposed CCR, including on the working face, as needed.
- During loading and unloading activities, drop height is reduced, as needed, to reduce potential for dust mobilization.
- During high wind conditions, unloading operations at the working face may be reduced or halted.

After final elevations are achieved, the final cap and cover, including vegetation, will be installed and maintained to reduce the potential for CCR becoming exposed to the atmosphere.

### **2.3 CCR Surface Impoundment Unit**

Energy has no active CCR surface impoundments at Sibley. Closure of all surface impoundments was completed on January 28, 2020, and August 28, 2020, per notice provided to the Missouri Department of Natural Resources (MDNR). Due to closure activities, dust control measures that were historically employed have been discontinued.

#### **2.4 Facility Roads**

Due to decommissioning activities, road traffic at the facility is greatly reduced. Despite the reduction in traffic, the following dust control measures are typically implemented for roads in active use for CCR management activities at the facility.

- Reduced vehicle speed limits are enforced to reduce dust mobilization.
- During high wind conditions, landfill operations and related traffic may be reduced or halted.
- Maintenance is performed on landfill and facility roads to ensure minimal dust formation. This can include road cleaning and/or placement of additional roadbed material (gravel, compacted sediment, etc.)
- Covered haul trucks are utilized to transport CCRs to the landfill. All hauled CCRs are preconditioned to reach a minimum moisture content of 10%.

### **3.0 Citizen Complaint Log**

A specific requirement of the CCR Fugitive Dust Control regulations (40 CFR 257.80(b)(3)) requires owners and operators of all CCR units to develop and implement formal procedures within the Plan for logging citizen complaints involving CCR fugitive dust events.

Complaints received by Sibley or Evergy will be recorded by/forwarded to the designated point(s) of contact for logging and recordkeeping. Sibley will maintain records of concerns about CCR fugitive dust from the facility in accordance with 40 CFR 257.80(b)(3) using the CCR Fugitive Dust Complaint Record provided in Appendix A.



#### **4.0 CCR Fugitive Dust Control Plan Assessment and Amendment**

Evergy assesses the effectiveness of CCR Fugitive Dust Control Plans, annually, in accordance with 40 CFR 257.80(b). If practical and more effective prevention and control technology has been field-proven at the time of the review and will significantly improve dust controls, this CCR Fugitive Dust Control Plan will be amended to reflect the changes. Amended plans are certified by a qualified Professional Engineer as required by 40 CFR 257.80(b)(7). All plan changes are documented using the Revision History which prefaces this Plan.

Based on the assessment, Evergy may choose to amend this Plan if measures are deemed ineffective or if changes have been made to the areas being managed, the dust control measures, and/or other operating practices are required to continue compliance with the regulatory standards. Amendments to the current Plan will be completed in accordance with §257.80(b)(6) of the Final CCR Rule.

The state of Missouri will be notified in accordance with 40 CFR 257.106(g) when this Plan has been amended and placed in the facility operating record and on the Evergy CCR internet site.

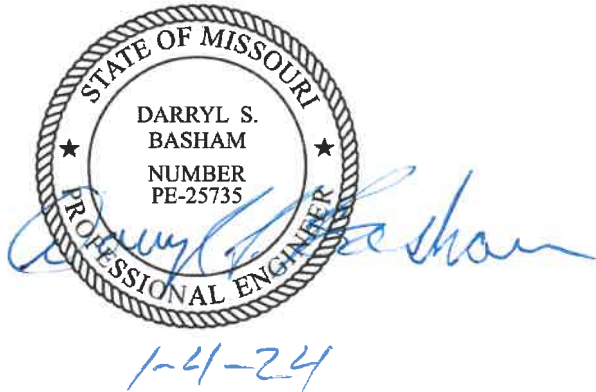
## 5.0 ENGINEERING CERTIFICATION

Pursuant to 40 CFR 257.80 and by means of this certification, I attest that:

- (i) I am familiar with the requirements of the CCR Rule (40 CFR 257);
- (ii) I, or my agent, have visited and examined the Sibley Generating Station;
- (iii) the CCR Fugitive Dust Control Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the CCR Rule;
- (iv) the CCR Fugitive Dust Control Plan meets the requirements of 40 CFR 257.80(b); and

Darryl Basham, P.E.

Printed Name of Qualified Professional Engineer



**Appendix A**

**CCR FUGITIVE DUST COMPLAINT RECORD**

**Site Name**

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**Time & Date of  
Correspondence**

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**Name of Citizen**

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**Phone Number**

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**Mailing address**

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**Email Address**

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**Topic of  
Correspondence**

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**Describe Observed  
Event (include  
date/time; wind &  
conditions, other  
info)**

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**Required Corrective  
Actions or Follow-  
Up, If Applicable**

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