



# **2018 ANNUAL CCR FUGITIVE DUST CONTROL REPORT**

## **Sibley Generating Station**

**33200 East Johnson Rd**

**Sibley, Missouri**

December 19, 2018

***KCP&L Greater Missouri Operations Co.***

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## SECTION 1

### BACKGROUND

The purpose of this Annual CCR Fugitive Dust Control Report (Report) is to describe the Coal Combustion Residuals (CCR) fugitive dust control actions taken over the past year to control CCR fugitive dust; provide a record of all citizen complaints received; and to provide a summary of corrective measures taken 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
Name of Operator:	KCP&L Greater Missouri Operations Co. (KCP&L GMO)
Operator Mailing Address:	33200 East Johnson Rd., Sibley, MO 64088
Location:	East of and adjacent to Sibley, Missouri
Facility Description	The Sibley Generating Station consists of three coal-fired units. CCR produced at the facility include fly ash, and bottom ash as slag. CCR is managed in three CCR units, including the Slag Settling Impoundment, Fly Ash Impoundment, and CCR Landfill. Fly ash is collected and either pneumatically conveyed to a silo or sluiced to the Fly Ash Impoundment. Fly ash may be off-loaded from the silo for beneficial use or conditioned and transported via truck to the landfill. The bottom ash (slag) is sluiced to the Slag Settling Impoundment, and then is moved by excavator to a concrete slab where it is loaded into trucks for beneficial use or transported to the landfill for disposal.

## **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.

## **1.3 Regulatory Requirements**

This Report has been developed for the Sibley Generating Station in accordance with 40 CFR 257.80 (c). The CCR Rule requires preparation of an Annual CCR Fugitive Dust Control Report for facilities including CCR landfills, CCR surface impoundments, and any lateral expansion of a CCR unit. Selected definitions from the CCR Rule are provided as follows.

**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.

## 2018 Annual CCR Fugitive Dust Control Report

The CCR Rule required owners or operators of CCR facilities to develop 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). KCP&L GMO prepared and placed a CCR Fugitive Dust Control Plan for this facility into the facility operating record on October 19, 2015. The CCR Rule requires owners or operators to “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 first annual report was developed and placed into the facility operating record on December 19, 2016, in accordance with 40 CFR 257.80 (c). In accordance with the same section of the CCR Rule, this report has been developed and placed into the CCR Operating Record on December 19, 2018, no later than one year following the placement of the previous annual report into the CCR Operating Record on December 19, 2017.

## SECTION 2

### CCR FUGITIVE DUST CONTROLS

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 surface impoundment units;
- (3) CCR landfill units; and
- (4) Facility roads.

Between October 20, 2017 and October 19, 2018, the Sibley Generating Station implemented dust control measures and actions as follows.

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

- Fly ash was transported to a silo via an enclosed pipeline, or was sluiced to the Fly Ash Impoundment, eliminating potential for dust.
- The silo was equipped with a bin vent filter to minimize dust generation.
- Fly ash designated for landfilling was conditioned prior to loading into trucks and/or at the landfill.
- Bottom ash was removed from the Slag Settling Impoundment to a concrete slab for dewatering and transport in a conditioned state to minimize generation of dust.
- During loading and unloading activities, drop height was reduced as needed to reduce the potential for mobilization of CCR dust.
- During high wind conditions, loading and management operations were modified, reduced or halted.
- Spilled CCR was wetted as necessary and removed using a street sweeper or loaders and vacuum systems to prevent dusting.
- Water spray was applied as necessary to CCR prior to and/or during staging.

#### **2.2 CCR Surface Impoundment Units**

In CCR surface impoundments (SI), CCR was stored as a slurry mixture with high water content and did not cause dusting. CCR that was managed in and excavated

from surface impoundments contained sufficient moisture to prevent dusting so did not require water be added.

### **2.3 CCR Landfill**

- CCR was conditioned before being placed into the landfill. Water was added as needed to the CCR materials to reduce wind dispersal and improve compaction during CCR placement in the landfill.
- Water spray was applied to the exposed CCR, including on the working face, as needed.
- During high wind conditions, unloading operations at the working face were reduced or halted.
- Areas that have achieved final elevations have been covered with soils and vegetated.

### **2.4 Facility Roads**

- Reduced vehicle speed limits were enforced to reduce dust mobilization.
- During high wind conditions, operations and related traffic were reduced or halted.
- Prior to transportation, when needed, CCR was covered using tarps; or water was added to CCR prior to transportation.
- During non-freezing weather, when required by operating and weather conditions, unpaved roads at the facility were sprayed multiple times per day using water trucks.
- Paved roads at the facility were cleaned by a sweeper/vacuum truck and, during periods of high traffic and/or dry weather, when required by operating and weather conditions, were sprayed by water trucks.

### **SECTION 3**

#### **CITIZEN COMPLAINTS**

KCP&L GMO has implemented a plan for logging of citizen CCR dust complaints in accordance with 40 CFR 257.80(b)(3). No complaints were received by Sibley or KCP&L GMO between October 20, 2017 and October 19, 2018.

## **SECTION 4**

### **SUMMARY OF CORRECTIVE MEASURES**

The KCP&L GMO Environmental Services Department performed an annual review for logged complaints and of the CCR dust control measures in place for the Sibley facility. KCP&L GMO found the measures in place were effective, and no changes or corrective measures were necessary during the period October 20, 2017 through October 19, 2018.