

# COAL COMBUSTION RESIDUAL FUGITIVE DUST CONTROL PLAN

**Facility Name:** Muskogee Generating Station

**Facility Location:** 5501 Three Forks Road, Fort Gibson, OK 74434

**Date:** October 19, 2015

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## 1. INTRODUCTION

This document is intended to fulfill the requirement for a fugitive dust control plan established in 40 CFR Parts 257.80. This plan identifies possible types and sources of fugitive coal combustion residual (CCR) dust as well as control and recordkeeping methods used at the facility to reduce dust. Overall, OG&E is committed to minimizing fugitive dust generation throughout the facility and personnel will follow maintenance practices to accomplish this objective.

## 2. FUGITIVE DUST EMISSION SOURCES

### 2.1. Fly Ash

Fly ash is generated through the combustion of coal in the boilers. It is removed from the exhaust air in the precipitators. The ash is then collected in hoppers under the precipitators and pneumatically transported through enclosed piping to storage silos. The fly ash is then loaded into trucks for beneficial use offsite. The areas where fugitive dust could occur are as follows:

#### 2.1.1 **Precipitator Hoppers**

Periodically it is necessary to open the precipitator hoppers to perform maintenance or clear blockages. During this process, fly ash may be temporarily deposited in the area surrounding the hoppers.

#### 2.1.2 **Fly Ash Silo**

The silos are enclosed storage structures. Possible origins of fugitive dust are the loading of trucks from the silos and non-marketable overflow material being deposited in the truck loading area.

## **2.2. Bottom Ash**

Bottom ash is generated through the combustion of coal in the boilers. It is collected in hoppers at the bottom of the boiler and is sluiced to dewatering bins.

From the dewatering bins the bottom ash is emptied into open bed semi or dump trucks, run across a scale and finally transported offsite for beneficial use.

## **2.3. Economizer Ash**

Economizer ash is generated through the combustion of coal in the boilers. It is collected in the economizer section of the boiler and is transported pneumatically in enclosed piping to a silo. From the economizer ash silo the ash is loaded into trucks via a telescoping pipe for transport offsite. Possible origin of fugitive dust is the loading of trucks from the silos and non-marketable material being deposited in the staging area.

## **2.4. Non-marketable Ash**

Non-marketable ash is infrequently generated by maintenance, repairs, and leaks on the ash systems. It is cleaned up and placed in vacuum or open top trucks and transported offsite by a contractor or taken to the ash staging area. If necessary, water or tarps will be applied to non-marketable ash to prevent fugitive dust.

## **2.5. Ash Staging Area**

This ash staging area is a concrete slab area with walls and is utilized for the staging of bottom and non-marketable ash. From the staging area, ash is loaded with front end loaders into trucks and transported offsite.

## **2.6. Roads and Drive Areas**

Roads and drive areas are utilized for the transportation of the various ash types by trucks and scrapers. Minor amounts of ash may accumulate in these areas during material handling operations.

# **3. FUGITIVE DUST CONTROL METHODS**

Coal combustion residual (CCR) ash will be handled in a manner at all times to minimize fugitive dust. The plant utilizes many management practices to minimize dust including wet suppression and posted speed limits. Proper maintenance is performed on all dust control systems equipment. Additionally, the facility is located in an agricultural/industrial area.

## **3.1. Fly Ash**

### **3.1.1 Precipitator Hoppers**

Dust from hopper maintenance will be minimized by emptying the hoppers as much as possible before opening hatch doors. Ash removed from the hoppers will be properly disposed. Clean up methods utilized by personnel include the use of skid-steer loaders, vacuum trucks, shovels, and brooms.

### 3.1.2 **Fly Ash Silo**

The fly ash silos are equipped with vent systems that discharge into the precipitators to prevent the emission of fugitive dust. The silos feature telescoping discharge piping allowing for a zero drop distance when loading trucks. The discharge piping is equipped with a vent system to capture dust during loading. Trucks loaded with ash will be enclosed. Fly ash that has accumulated at the base of the silos will be removed or watered when the possibility of fugitive dust occurs.

### 3.2. **Bottom Ash**

The main dust suppression associated with bottom ash is that it is wetted. Since bottom ash is sluiced with water to the dewatering bins it is normally a wet material with little to no fugitive dust impacts. Bottom ash that has accumulated at the base of the dewatering bins will be removed or watered when the possibility of fugitive dust occurs. Trucks loaded with ash will be properly tarped if the opportunity for fugitive dust exists.

### 3.3. **Economizer Ash**

Economizer ash is stored in an enclosed silo. The silo features a telescoping discharge pipe allowing for a zero drop distance when loading trucks. The discharge piping is equipped with a vent system to capture dust during loading. Trucks loaded with ash will be enclosed or properly tarped if the opportunity for fugitive dust exists. Ash that has accumulated at the base of the silo will be removed or watered when the possibility of fugitive dust exists.

### 3.4. **Non-marketable Ash**

Non-marketable ash is disposed of or moved to the ash staging area. Clean up methods utilized by personnel for non-marketable ash include the use of skid-steer loaders, vacuum trucks, shovels, and brooms. If necessary, water or tarps will be applied to non-marketable ash to prevent fugitive dust.

### 3.5. **Ash Staging Area**

The ash staging area has a concrete base and walls that act as a partial wind break. The area is watered if necessary to control dust. Non-marketable and bottom ash material stored in the staging area is loaded into open top trucks with front end loaders and is transported offsite for either beneficial use or disposal. Trucks loaded with ash from the staging area will be properly tarped if the opportunity for fugitive dust exists.

### 3.6. **Roads and Drive Areas**

When necessary, watering and the removal of excess ash material is utilized to suppress dust on roads and drive areas. Additionally, the plant has posted speed limits.

4. **PLAN MAINTENANCE**

A copy of this CCR Fugitive Dust Control Plan will be maintained on OG&E public website and the CCR Operating Record. The plan will be amended 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 generating unit. The plan and any subsequent amendments must be certified by a qualified professional engineer.

5. **CITIZEN COMPLAINTS**

A record of citizen complaints involving CCR fugitive dust events will be maintained. Citizen complaints may be filed through the CCR Rule Compliance Data and Information website by directing their questions to OG&E\_CCR\_Questions@oge.com. A summary of corrective measure taken, when applicable, will be maintained.

6. **ANNUAL REPORT**

An annual CCR fugitive dust control report, describing the actions taken to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken will be prepared. The first 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 annual CCR fugitive dust control report will be placed in the facilities operating record and on the OG&E publicly accessible internet site.

7. **PLAN CERTIFICATION**

This CCR Fugitive Dust Plan has been reviewed and it has been determined to meet the requirements of 40 CFR 257.80(b)1 through 7.



Carol Rollins, PE

10/16/2015