

# **PUBLIC SERVICE COMPANY OF OKLAHOMA (PSO)**

## **NORTHEASTERN POWER STATION**



# **ANNUAL CCR FUGITIVE DUST CONTROL REPORT**

Prepared By:

**Public Service Co. of Oklahoma  
Northeastern Power Station  
7300 East Highway 88  
Oologah, OK 74053**

and

**American Electric Power (AEP)  
Air Quality Services – West  
1201 Elm Street, Suite 800  
Dallas, TX 75270**

**September 2017**

# Table of Contents

---

<b>1.0 Introduction.....</b>	<b>1</b>
<b>2.0 Facility Description and Contact Information .....</b>	<b>1</b>
<b>2.1 Facility Information .....</b>	<b>1</b>
<b>2.2 Contact Information.....</b>	<b>1</b>
<b>2.3 Facility Description .....</b>	<b>2</b>
<b>3.0 Fugitive Dust Controls .....</b>	<b>3</b>
<b>4.0 Citizen Complaint Log .....</b>	<b>4</b>
<b>4.1 Plant Contacts .....</b>	<b>4</b>
<b>4.2 Follow-up .....</b>	<b>5</b>
<b>4.3 Corrective Actions and Documentation.....</b>	<b>5</b>
<b>5.0 Plan Assessment .....</b>	<b>5</b>
<b>6.0 Recordkeeping, Notification and Internet Requirements.....</b>	<b>5</b>
<b>6.1 Recordkeeping.....</b>	<b>5</b>
<b>6.2 Notification.....</b>	<b>6</b>
<b>6.3 Internet Site Requirements .....</b>	<b>6</b>

## 1.0 INTRODUCTION

This Annual CCR Fugitive Dust Control Report (Annual Report) has been prepared pursuant to 40 CFR Part 257.80, Air Criteria. The Annual Report summarizes activities described in Northeastern Power Station's CCR Fugitive Dust Control Plan, including a description of actions taken to control CCR fugitive dust; a record of all citizen complaints; and a summary of any corrective measures taken.

This initial Annual Report must be completed no later than 14 months after placing the initial Plan in the facility's operating record. The initial Northeastern Power Station CCR fugitive dust control plan was placed into the operating record on October 13, 2015, following agency notification on September 25, 2015. This Annual Report addresses the period from **September 16, 2016 through September 30, 2017**. The Annual Report is deemed complete when it is placed in the facility's operating record as described in Section 6.0 of this report. The deadline for completing subsequent Annual Reports is one year after the date of completing the initial reporting requirement.

The Annual Report will be placed in the CCR operating record and retained in the office of the Northeastern Power Station's Plant Environmental Coordinator (PEC). The Plan will also be placed on American Electric Power's publicly accessible internet website titled "CCR Rule Compliance Data and Information" also described in Section 6.0 of this Plan

## 2.0 FACILITY DESCRIPTION AND CONTACT INFORMATION

### 2.1 Facility Information

#### General Information:

Name of Facility: Public Service Company of Oklahoma (PSO), Northeastern Power Station

Street: 7300 East Highway 88

City: Oologah

State: OK

ZIP Code: 74053

County: Rogers

Latitude: 36.43783° N

Longitude: 95.70537° W

### 2.2 Contact Information

#### Facility Operator:

Name: Public Service Company of Oklahoma – Northeastern Power Station

Attention: P.M. Barton - Plant Manager

Address: P.O. Box 220, 7300 E. HWY 88

City, State, Zip Code: Oologah, OK 74053

**Facility Owner:**

Name: American Electric Power

Attention: Bruce Moore – Manager, Air & Water Quality – West

Address: 1201 Elm Street, Suite 800

City, State, Zip Code: Dallas, TX 75270

**Plan Contact:**

Name: Sam Miller – Northeastern Plant Environmental Coordinator (PEC)

Address: P.O. Box 220, 7300 East HWY 88

City, State, Zip Code: Oologah, OK 74053

Telephone number: 918-581-0063

Email address: srmiller@aep.com

**2.3 Facility Description**

Northeastern Power Station (NES) is located on the west bank of the Verdigris River southeast of the intersection of U.S. Highway 169 and Oklahoma Highway 88. The facility consists of four electric generating units: Unit 1A, Unit 1B, and Unit 2 – each of which uses natural gas, and Unit 3, which uses coal. Public Service Company of Oklahoma (PSO) owns and operates Northeastern Power Station's nominally rated 490-megawatt Unit 3. Northeastern Power Station Unit 3 has historically converted approximately 2.0 million tons of coal per year into electricity, powering thousands of homes, businesses, schools, and industrial facilities. Note that as of April 16, 2016, Unit 4 was officially retired in place.

Northeastern Unit 3 retains an existing electrostatic precipitator (ESP) used to capture coal combustion residuals strictly for (marketable fly ash) recovery. Additionally, as of April 16, 2016, Northeastern Unit 3 was equipped, downstream of the ESP, with Activated Carbon Injection (ACI) for mercury emission control, Dry Sorbent Injection (DSI) for sulfur dioxide and acid gas emissions control, and a Fabric Filter (FF) for particulate matter emission control of ash, activated carbon, and dry sorbent. The ACI/DSI/FF system serves as the pollution control system for Unit 3.

Bottom ash produced by Unit 3 is wet sluiced to the Bottom Ash Pond (BAP) removal and segregation area during unit operations. In the removal area, bottom ash drops out of the water stream that flows into the deeper body of the pond. Segregated bottom ash is routinely reclaimed, temporarily staged in piles adjacent to the BAP, and regularly transported to the NES Landfill for

storage, use as construction material, or optionally sold for offsite beneficial reuse as marketable material.

The fly ash handling system is enclosed. Fly ash removed by the electrostatic precipitators serving Unit 3 is collected in hoppers, pneumatically conveyed to the fly ash silo and loaded into trucks. Fly ash may be either hauled offsite by truck or railcar for sale as marketable material for beneficial reuse, or hauled by truck to the NES Landfill, located on NES Plant property, for disposal. Additionally, DSI and ACI byproduct may be mixed with fly ash at an estimated 10-15% rate in the byproduct pug-mill system prior to transport of the mixture by truck to the Landfill for disposal.

### 3.0 FUGITIVE DUST CONTROLS

The following fugitive dust control measures were implemented during the period addressed by this Annual Report:

<b>Plant Activity</b>	<b>Fugitive Dust Control Measures</b>
Fly Ash Silo and Byproduct Silo Unloading	Fall distances for non-dimensional ash and byproduct into trucks were reduced by durable flaps installed as permanent extensions to silo chutes. Ash and byproduct materials inadvertently lost during filling and spilled onto truck/trailer surfaces or onto the ground are routinely removed to minimize fugitive emissions.
Dry Activated Carbon and Dry Sorbent Unloading and Handling	Fugitive dust emissions were controlled by closed, pneumatic unloading of rail cars or truck, bin vent filtering on top of silos, regular Method 9 or Method 22 bin vent filter readings, and prompt removal of inadvertently spilled ACI/DSI dry materials.
Vehicle Travel Over Plant and Landfill, Paved and Unpaved Roadways	Roadways were routinely watered and water usage records maintained, vehicle speed controls of 15 mph were implemented, excess materials incurred during loading operations were removed from vehicles prior transport, spilled materials were promptly removed from haul roads, chemical suppressants were used as needed for specific conditions, and hauling operations were delayed or suspended during high-wind conditions.
Landfill Unloading and Placement of Materials	Landfill unloading operations were controlled by maintaining moisture in the unloaded materials, taking precautionary measures such as minimizing drop height, controlling the rate of the dumping angle, the use of a mobile dust suppression watering tank, and the use of a watering truck in the unloading area. Additionally, unloaded materials are routinely rolled out, blended,

	evenly spread, and compacted using a bulldozer or similar equipment. Unloading is suspended during high wind conditions.
Landfill – Wind Erosion	Open area fugitive dust control measures included installation of rain flaps on landfill berms, minimization of pile height, prompt blending and compaction of deposited materials, and the application of chemical suppressants.
Bottom Ash Pond	Emissions of reclaimed bottom ash were controlled by the inherent moisture of the material, prompt removal of staged material (timely loading of transport trucks), application of chemical suppressants as needed, pile height control, minimization of material drop height and maintenance of a windbreak berm around the bottom ash pile. The haul road adjacent to the bottom ash pile was routinely watered.
Railcar Loading From Transport Trucks of Fly Ash for Transport Offsite	Clean, truck-trailer combinations loaded fly ash from the Unit 3 fly ash silo and transported marketable ash only a short distance to the railcars for unloading. Fugitive dust emissions were controlled by a pressurized bag house.

***Note:** Implementation of control measures will not be necessary for roadways that are covered with snow and/or ice or if sufficient precipitation occurs to minimize or eliminate fugitive dust. Implementation of any control measures may be suspended if unsafe or hazardous driving conditions would be created by its use.*

## 4.0 CITIZEN COMPLAINT LOG

### 4.1 Plan Contacts

Generally, complaints made to the plant are by telephone and received by the PEC (Plan Contact) and/or the Plant Manager or his designee. In the case of holiday, weekends, or other times when the PEC may not be onsite, the plant control room may receive complaint information by telephone which will be provided to the PEC at the earliest convenience. **No complaints were received by the Plant PEC during the period addressed by this Annual Report.**

#### **4.2 Follow-up**

Any complaints will be entered into a log by the PEC with details noted such as the nature of the complaint, date, time, and other relevant details. All complaints will be followed up which may include: checking plant operations at the time of the event, reviewing inspection records, discussing with other plant personnel, reviewing weather data, collecting samples and contacting the person making the complaint to obtain additional information. **No complaint follow-up was necessary during the period addressed by this Annual Report.**

#### **4.3 Corrective Action and Documentation**

Corrective actions will be taken as needed and documented. If it is determined that the Plan needs to be amended as a result of the corrective actions, it will be amended in accordance with the Plan. If possible, the PEC will follow-up with the complainant to explain the findings of the complaint investigation, corrective actions or sampling results. Citizen complaints will be recorded in the annual Report. **No corrective actions due to complaints were necessary during the period addressed by this Annual Report.**

### **5.0 PLAN ASSESSMENT**

The Plan will be periodically assessed to verify its effectiveness, and if necessary, amended. **The PEC reviewed the inspection records when preparing this Annual Report to assess the effectiveness of the Plan, and the PEC recommended a mobile watering tank and spray equipment should be maintained on the Landfill to control fugitive emission of light weight fly ash or byproduct materials deposited from dump trucks.**

### **6.0 RECORDKEEPING, NOTIFICATION and INTERNET REQUIREMENTS**

#### **6.1 Recordkeeping**

The Annual Report and the Plan (and any subsequent amendment of the plan) will be kept in the facility's operating record as they become available. The Plan and files of all related information will be maintained in a written operating record at the facility for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, record or study. Only the most recent Plan must be maintained in the record. Files may be maintained on a computer or storage system accessible by a computer. One recordkeeping system may be used for the Bottom Ash Pond (BAP) and Landfill if the system identifies each file by the name of each unit (i.e. BAP or Landfill).

## **6.2 Notification**

The Director of the ODEQ will be notified within 30 days of when the Annual Report is placed in the operating record and on the publicly available internet site. This notification will be made before the close of business on the day the notification is required to be completed. "Before the close of business day" means the notification must be postmarked or sent by e-mail. If the notification deadline falls on a weekend or federal holiday, the notification is automatically extended to the next business day.

## **6.3 Internet Site Requirements**

The most recent Annual Report will be placed on the facility's CCR website titled "CCR Rule Compliance Data and Information" within 30 days of placing it in the operating record.