

KENTUCKY POWER COMPANY

BIG SANDY PLANT



FUGITIVE DUST CONTROL PLAN

Prepared By:

Kentucky Power Company
Big Sandy Plant
23000 Highway 23
Louisa, Kentucky 41230

and

American Electric Power Service Corporation
Environmental Services
1 Riverside Plaza
Columbus, Ohio 43215

Original Plan Date – September 18, 2015

Revision 4 – September 21, 2021

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Appendices

Appendix A – 40 CFR Part 257.80 Air Criteria (Fed. Reg. April 17, 2015)

Appendix B – Big Sandy Plant General Site Map

Appendix C – Plan Modification Documentation

Professional Engineer's Certification

By means of this certification, I certify that I have reviewed this CCR Fugitive Dust Control Plan and it meets the requirements of section 40 CFR 257.80(b).

DAVID ANTHONY MILLER

Printed Name of Registered Professional Engineer



David Anthony Miller

Signature

33232

Registration No.

KENTUCKY

Registration State

09.21.21

Date

1.0 INTRODUCTION

This CCR Fugitive Dust Control Plan (Plan) has been prepared pursuant to the air criteria of 40 CFR part 257.80 (see Appendix A). The Plan has been prepared in accordance with the air criteria and following good engineering practices to include measures that will effectively minimize CCR from becoming airborne at the facility. The Plan and subsequent amendments will be placed on Big Sandy Plant's publicly accessible internet website titled "CCR Rule Compliance Data and Information." 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 unit. Where appropriate, the Plan incorporates fugitive dust control requirements as contained in the Kentucky Department of Air Quality (KDAQ) air permits issued for the plant.

There were three CCR surface impoundments originally at Big Sandy Plant subject to the Plan. The surface impoundments included two bottom ash ponds (BAP) and one fly ash reservoir (FAR). The bottom ash ponds are permanently closed, and the FAR is in process of permanent closure. The Plan addresses this CCR unit and the associated paved and unpaved roadways.

2.0 FACILITY DESCRIPTION AND CONTACT INFORMATION

2.1 Facility Information

Facility Information

Name of Facility: Kentucky Power Company – Big Sandy Plant

Street: 23000 Highway 23

City: Louisa State: KY ZIP Code: 41230

County: Lawrence

Latitude: 38° 10' 7" N Longitude: 82° 37' 15" W

2.2 Contact Information

Facility Operator:

Name: Kentucky Power Company – Big Sandy Plant

Attention: Paul Massie- Plant Manager

Address: 23000 Highway 23

City, State, Zip Code: Louisa, KY 41230

Facility Owner:

Name: Kentucky Power Company
Attention: Scott Weaver – Director, AQS
Address: 1 Riverside Plaza, 17th Floor
City, State, Zip Code: Columbus, Ohio 43215

Plan Contact:

Name: Nicholas Smith – Environmental Coordinator
Address: 23000 Highway 23
City, State, Zip Code: Louisa, KY 41230
Telephone number: 606-686-1407
Email address: ndsmith@aep.com

2.3 Activities at the Facility

The Big Sandy Power Plant is located along the bank of the Big Sandy River in Louisa, KY, and currently consists of one gas-fired electric generating unit (EGU). Kentucky Power Co. owns and operates Big Sandy's nominally rated 268-megawatt Unit 1. Unit 1 (BSU1) was originally a coal-fired EGU, but was converted to a gas-fired unit in 2016.

Bottom ash was historically produced by the combustion of coal in two coal-fired units (BSU1 and BSU2), collected in the bottom of the steam generators, and wet sluiced to BAPs during unit operations. Due to the retirement of BSU2 and the conversion of BSU1 to gas-fired, these surface impoundments were permanently closed in the first quarter of 2020.

Fly ash was historically removed from the precipitator hoppers, and using a hydroveyor system, mixed with water and pumped to the FAR. The FAR is located across the road from the plant site. Due to the retirement of BSU2 and the conversion of BSU1 to gas-fired, the FAR is in process of being closed.

2.4 Site Maps

A USGS topographic map for the Big Sandy Plant is included in Appendix B. The map is marked-up to depict the general locations of the plant site, bottom ash ponds, and fly ash reservoir (pond).

3.0 FUGITIVE DUST CONTROL SELECTION

3.1 Paved and Unpaved Roadways

3.1.1 Overview

Trucks and heavy equipment are used during the closure phases of the FAR. This equipment predominately operates on unpaved surfaces in order to level the FAR terrain, but occasionally will operate on paved roadways. The applicable and adequate fugitive dust control measures were primarily selected in accordance with the measures contained in the Title V permit for the plant roads. The roadways are also subject to visible emission limits as contained in the air permit. Periodically, public roads traveled by trucks may be addressed to minimize fugitive dust due to plant activity.

3.1.2 Plant Roadway Controls

The primary appropriate and applicable fugitive dust control measures for roadways are watering, sweeping, and speed controls. Water trucks are used as needed based upon the periodic inspections and other observations to minimize or eliminate fugitive dust. Chemical suppressants or stabilizers may also be used on unpaved roadways depending on specific site conditions. A street sweeper/vacuum truck is used to clean paved roadways. Posted speed limits are 15 mph for paved and unpaved roads. Earth or other materials that may be deposited onto paved roadways from trucks will be promptly removed to minimize fugitive emissions. 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.

3.2 Fly Ash Reservoir

3.2.1 Fly Ash Storage and Wind Erosion

Big Sandy Plant's fly ash pond is in process of permanent closure. Due to the wet condition of the ash, the pond typically has no fugitive emissions. During the closure process, however, dewatering efforts have eliminated much of the moisture. As a result, fugitive dust control measures include watering as needed to minimize wind erosion.

4.0 PLAN ASSESSMENT

The Plan will be periodically assessed to verify its effectiveness, and if necessary, amended in accordance with Section 7.0 below. The FAR and associated paved and unpaved roadways are inspected on a daily basis. The purpose of the inspections is to determine if the control measures for each CCR unit as described above are being implemented as necessary to minimize or eliminate fugitive emissions. Records of inspections and the control measures implemented as a result of the inspections will be maintained. The PEC will review the inspection records when preparing the Annual Report (see Section 6.0 below) to assess the effectiveness of the Plan and determine if additional or modified measures are warranted. No inspection is necessary if the surface is covered with snow and/or ice or if precipitation has occurred that is sufficient to minimize or eliminate fugitive emissions. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

5.0 CITIZEN COMPLAINTS

5.1 Plant Contacts

Generally, complaints made to the plant are by telephone and received by the PEC (Plan Contact). In the case of holiday, weekends, or other times when the PEC may not be onsite, the plant guard houses or plant general phone number may receive complaint information by telephone that is provided to the PEC at the earliest convenience. Complaints may also be made to Kentucky DAQ who in turn will contact the PEC.

5.2 Follow-up

All 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.

5.3 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 and/or Kentucky DAQ to explain the findings of the complaint investigation, corrective actions or sampling results. Citizen complaints will be recorded in the Annual Report.

6.0 ANNUAL REPORT

The Annual CCR fugitive dust control report (Annual Report) will be prepared which includes the following components: description of actions taken to control CCR fugitive dust; a record of all citizen complaints; and a summary of any corrective measures taken. The deadline for completing reports is one year after the date of completing the previous report. The Annual Report will be deemed complete when the plan has been placed in the facility's operating record as described in Section 8.0.

7.0 PLAN AMENDMENTS

This Plan is a "living" document and will be amended, as necessary, whenever there is a change in condition that would substantially affect the written plan in effect. The Plan will be amended in the case of construction and operation of a new CCR unit. Amendments and revisions made to the Plan will be documented in Appendix C. The amended Plan will be placed into the facility's operating record as described in Section 8.0.

8.0 RECORDKEEPING, NOTIFICATION and INTERNET REQUIREMENTS

8.1 Recordkeeping

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. Files may be maintained on a computer or storage system accessible by a computer. One recordkeeping system may be used for the BAPs (now closed) and the FAR if the system identifies each file by the name of each unit. The Plan (and any subsequent amendment of the plan) and the Annual Report will be kept in the facility's operating record as they become available. Only the most recent Plan must be maintained in the record.
[§ 257.105]

8.2 Notification

Kentucky DAQ – Ashland Regional Office as well as the Kentucky DAQ director will be notified within 30 days of when the Plan (or any subsequent amended Plan) or 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. [§ 257.106]

8.3 Internet Site Requirements

The most recent Plan and annual Report will be placed on the facility's CCR website titled "CCR Rule Compliance Data and Information" within 30 days of placing them in the operating record. [§ 257.107]

Appendix A

Operating Criteria (re: Fed. Reg. Vol. 80, No. 74, April 17, 2015)

§ 257.80 Air criteria.

(a) The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must 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.

(b) *CCR fugitive dust control plan.*

The owner or operator of the CCR unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in paragraphs (b)(1) through (7) of this section. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.

(1) The CCR fugitive dust control plan must identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. The owner or operator must select, and include in the CCR fugitive dust control plan, the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions. Examples of control measures that may be appropriate include: Locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; reducing fall distances at material drop points; using wind barriers, compaction, or vegetative covers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events; or applying a daily cover.

(2) If the owner or operator operates a CCR landfill or any lateral expansion of a CCR landfill, the CCR fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.

(3) The CCR fugitive dust control plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.

(4) The CCR fugitive dust control plan must include a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan.

(5) The owner or operator of a CCR unit must prepare an initial CCR fugitive dust control plan for the facility 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. The owner or operator has completed the initial CCR fugitive dust control plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(1).

(6) *Amendment of the plan.* The owner or operator of a CCR unit subject to the requirements of this section may amend the written CCR fugitive dust control plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(1). The owner or operator must amend the written plan 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 unit.

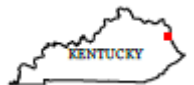
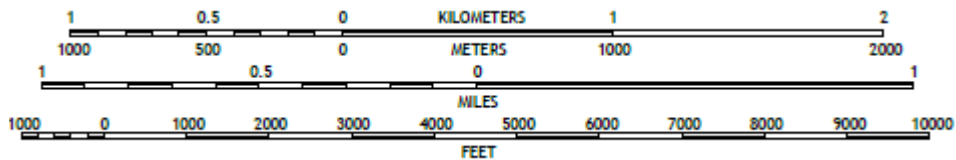
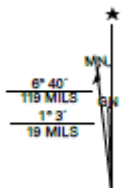
(7) The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of this section.

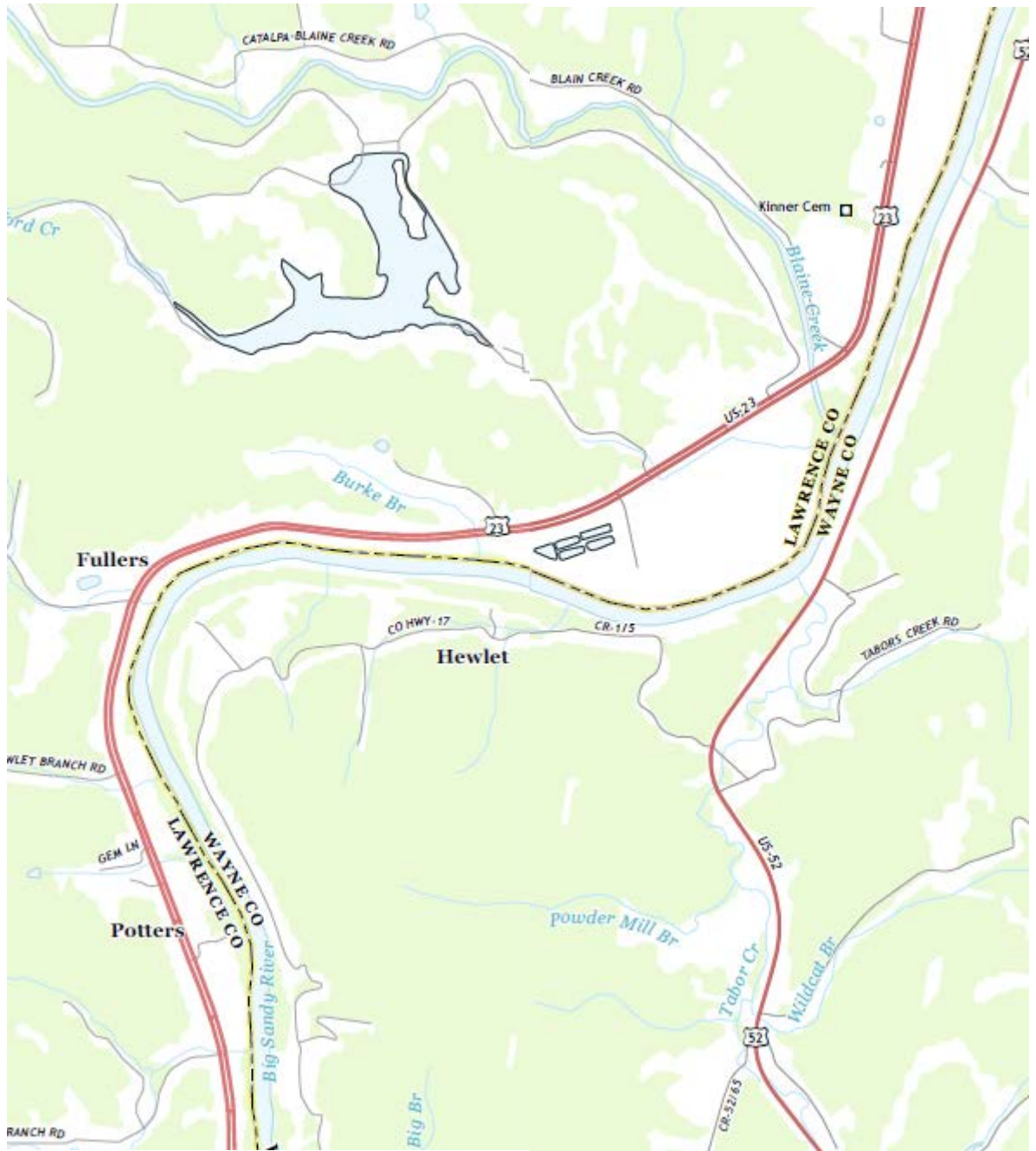
(c) *Annual CCR fugitive dust control report.* The owner or operator of a CCR unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial 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 deadline for completing a subsequent report is one year after the date of completing the previous report. For purposes of this paragraph (c), the owner or operator has completed the annual CCR fugitive dust control report when the plan has been placed in the facility's operating record as required by § 257.105(g)(2).

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

Appendix B

Big Sandy Plant Area General Site Map





Appendix C

