

**Big Rivers Electric Corporation - Sebree Generating Station
(R. A. Reid, R. D. Green and HMPL Station Two)**



Fugitive Dust Control Plan for Coal Combustion Residuals

Prepared For:

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Glossary of Terms

Best Management Practice (BMP): a recommended technique designed to assist industries to comply with environmental regulations.

Beach: the exposed area of deposited CCR material occurring above the inundated zone.

Coal Combustion Residuals (CCR): 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: solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

CCR landfill: 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 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 pile or stockpile: any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. CCR that is beneficially used off-site is not a CCR pile.

CCR surface impoundment: a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

Particulate matter: any material, except water in uncombined form, which exists as a liquid or a solid at standard conditions.

Paved roadway: a roadway with a surface of asphalt or concrete.

Trackout: the deposition of mud, dirt, or similar debris onto the surface of a paved road from tires and/or undercarriage of any vehicle associated with the operations of a facility.

Transfer point: a point in a conveying operation where CCR material is transferred to or from a belt conveyor, except where the CCR material is being transferred to a stockpile.

Truck dumping: the unloading of CCR material from movable vehicles designed to transport CCR material from one location to another. Movable vehicles include, but are not limited to, trucks, front-end loaders, skip hoists, and railcars.

Unpaved haul road: an unsurfaced roadway within the physical boundary of the facility that is used as a haul road, access road or similar means of ingress or egress.

1.0 Introduction

The Fugitive Dust Control Plan describes the control measures and practices that the Big Rivers Electric Corporation Sebree Generating Station (Sebree Station) will implement to minimize and control fugitive dust as required by the USEPA Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities 40 CFR Section (§) 257.80 (Air Criteria). Specifically the rule requires the following which is incorporated into the plan by reference:

(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 (b)(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 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 fugitive 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

1.0 Introduction

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, 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).

2.0 Plan Objectives

The plan defines the following objectives:

- Procedures that Sebree Station personnel will follow to control fugitive dust.
- Steps that will be followed to bring fugitive dust within appropriate ranges.
- Steps that Sebree Station will take, and corrective procedures that will be followed to control avoidable fugitive dust from CCR sources.

To meet these objectives, the Fugitive Dust Control Plan:

- Identifies applicable fugitive dust CCR sources at the facility.
- Identifies the primary and contingent control measures and practices to control and minimize fugitive dust.
- Includes a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan.
- Includes procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.
- Specifies that 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).

3.0 Potential Fugitive Dust Sources

Applicable CCR fugitive dust sources are identified in the Table of Potential Fugitive Dust Sources and describe the measures and practices employed to control fugitive dust at each. These sources are further described below.

3.1 Unpaved Haul Roads and Service Roads in CCR Handling Areas

Potential unpaved haul road and service road fugitive dust sources subject to the plan include:

- Haul road fugitive dust from trucks hauling CCR materials on unpaved roads. The materials being hauled include fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal.
- Service road fugitive dust from light vehicles traveling on unpaved roads within areas of the facility where CCR is handled.
- Controlling haul road and service road fugitive dust is important for employee safety, equipment maintenance, as well as protecting the air quality of the area.

3.2 Paved Roads in CCR Handling Areas

Potential paved road fugitive dust sources subject to the plan include fugitive dust from paved roads in CCR handling areas assumed to be traveled by cars and light trucks and by service and freight trucks.

3.3 CCR Stockpiles and Silos

Potential fugitive dust sources are related to stockpiles of, and silos containing, CCR materials including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal.

3.4 CCR Materials Transfer Points

Potential fugitive dust sources are related to the conveying and transfer of CCR materials including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal.

3.5 CCR Surface Impoundments

There are two potential fugitive dust sources associated with a CCR surface impoundment:

3.0 Potential Fugitive Dust Sources

- Reid/HMPL Ash Pond where wet CCR material is delivered for storage and disposal.
- Green Ash Pond where wet CCR material is delivered for storage and disposal.
- Also, service and access roads adjacent to these ash ponds that are accessible by light vehicle traffic for personnel and maintenance purposes are potential fugitive dust sources.

3.6 CCR Landfills

There is one potential fugitive dust source associated with a CCR landfill:

- Green Ash Landfill where moist/dry CCR material is delivered for storage and disposal. The elevation of the landfill creates exposure to wind erosion prior to fugitive dust control measures.
- Also, mobile equipment (trucks and bull dozers, etc.) working on the landfill and service and access roads adjacent to the landfill that are accessible by light vehicle traffic for personnel and maintenance purposes are potential fugitive dust sources.

4.0 Operating Practices and Control Measures

The operating practices and control measures that will be implemented and recorded for the potential fugitive dust sources identified in Section 3 are described below. Sebree Station trains and assigns appropriate personnel the responsibility to control fugitive dust in their areas of operation.

4.1 Unpaved Haul Roads and Service Roads in CCR Handling Areas

Primary Controls: Watering and other fugitive dust suppressant application, road maintenance including crushed rock surfacing, grading and scarifying.

Contingent Controls: Increased application of primary controls.

Practices: The operating practices Sebree Station will use include, but are not limited to, the following:

- Sebree Station will perform fugitive dust observations on active haul roads. If fugitive dust are observed that need controls, Sebree Station employees will investigate the condition and take appropriate corrective action to address the fugitive dust. The observation of fugitive dust does not, in and of itself, demonstrate noncompliance with any applicable requirement but is a signal to trigger investigation and, if necessary, reasonable and appropriate corrective action.
- In non-freezing conditions, fugitive dust will be controlled by the following strategies:
 - Water will be applied to the active haul roads during the day and afternoon shifts, as required by weather, traffic and road conditions. Water trucks will be dispatched and unpaved roads will be watered if excessive fugitive dusting is encountered. Some weather conditions during the summer months, such as low humidity and high winds, require a higher water frequency. The frequency and amount of water application will be adjusted depending on weather conditions. Runoff will be controlled so it does not saturate the surface of the adjacent unpaved haul road and enhance trackout. If runoff is not or cannot be controlled, gravel may be applied to the surface of the adjacent unpaved haul road over an area sufficient to control trackout.
 - Haul roads will be graded as required.
 - Crushed rock will be added to the road surface to minimize fugitive dust generation.
 - Liquid chemical fugitive dust suppressant may also be applied to some high traffic areas for fugitive dust control as needed (as is permissible per other

4.0 Operating Practices and Control Measures

environmental permits associated with the site).

- In freezing conditions, fugitive dust will be controlled by the following strategies:
 - Solid or liquid chemical fugitive dust suppressant may be applied to the haul road in late fall prior to freeze up. Haul roads will be scarified as necessary.
 - New haul road material will be applied as needed.
- Sebree Station will maintain adequate watering capacity to control fugitive dust during typical summer conditions.
- Sebree Station will rely on site specific weather information or reports from the closest National Weather Service (NWS) station to provide temperature, wind speed/direction and precipitation readings.
- Sebree Station, as necessary, will evaluate new technologies or methods in fugitive dust suppression for their technical and economic feasibility as they become commercially available.

4.2 Paved Roads in CCR Handling Areas

Primary Controls: Street sweeping, as needed.

Contingent Controls: Increased application of primary controls.

Practices: The operating practices that Sebree Station will use include, but are not limited to, sweeping or washing of the paved roads as needed to prevent fugitive dust.

4.3 CCR Stockpiles and Silos

Primary Controls: Natural moisture content of stockpiled or stored materials.

Contingent Controls: Water spray as needed during non-freezing conditions.

Practices: The operating practices that Sebree Station will use include, but are not limited to, the following:

- Sebree Station will minimize the drop distances onto each stockpile and manage spillage as much as practicable.

4.0 Operating Practices and Control Measures

4.4 CCR Material Transfer Points

Primary Controls: Natural moisture content of materials, minimized drop distances when possible.

Contingent Controls: Natural moisture content of stockpiled materials.

Practices: The operating practices that Sebree Station will use include, but are not limited to, the following:

- Sebree Station will minimize the drop distances onto each stockpile as much as practicable.

4.5 CCR Surface Impoundments

Primary Controls: Beach area minimization, mulching, vegetation, systematic dumping.

Contingent Controls: Change influent discharge points as necessary.

Practices: The operating practices that Sebree Station will use include, but are not limited to the following:

- During freezing months (typically late November through early April), freshly deposited CCR material may freeze and and/or become covered with snowfall which minimizes fugitive dust.
- Beach areas developed during non-freezing months (typically early April through late November) will be treated as appropriate (i.e. mulched applied, vegetated, or application of fugitive dust suppressants) as soon as practical to prevent large areas of exposed beach to dry out, especially during freeze drying conditions or hot, windy conditions. Dike construction techniques and water level management will help minimize exposed beach areas which will be treated in a timely manner to limit the risk of dry conditions on the beaches.
- Fugitive dust suppressing objectives for the CCR surface impoundments include:
 - Maintain adequate freeboard around the dike perimeter.
- As needed, Sebree Station will apply water or chemical fugitive dust suppression materials to the surface impoundment service roads.

4.0 Operating Practices and Control Measures

4.6 CCR Landfills

Primary Controls: Disturbance area minimization, mulching, vegetation, systematic dumping.

Contingent Controls: Water spray as needed during non-freezing conditions.

Practices: The operating practices that Sebree Station will use include, but are not limited to, the following:

- Selective dumping, grading and covering of CCR material can be timed to minimize generation of fugitive dust.
- Upwind berms can prevent CCR material movement and wind erosion.
- Application of water and/or a stabilizing agent in sufficient quantities to prevent the generation of fugitive dust (apply water to materials to stabilize and maintain materials in a crusted condition).
- Maintain effective cover over materials to stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes.
- Plant or hydroseed prior to dry season to establish vegetation.

5.0 Recordkeeping and Citizen Complaint Log-in

- The owner or operator of the CCR unit will 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).
- All citizen complaints will be logged in and reviewed by facility personnel. Pertinent information, if provided by the complainant or otherwise available, should include:
 - Name of complainant
 - Date and time of complaint
 - How complaint was received (telephone, written correspondence, verbal correspondence, etc.)
 - Contact information for complainant (address, telephone number, etc.)
 - Reason for complaint
 - Follow-up action and/or response by facility

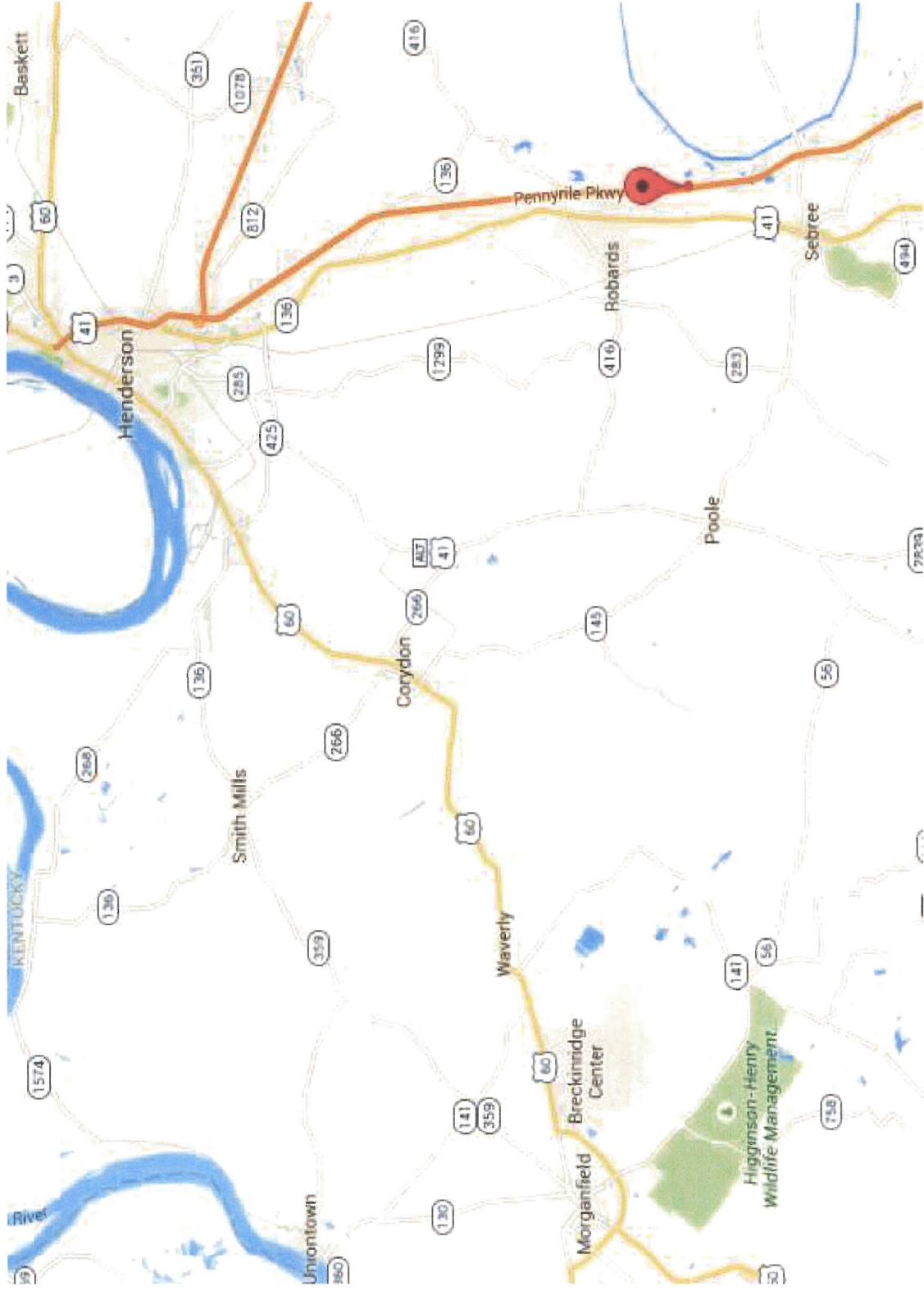
6.0 Training and Periodic Plan Review

- An integral part of the implementation of the Fugitive Dust Control Plan is appropriate training for the personnel involved. Training will be provided for all levels of personnel at the facility and will cover a subset of the following subjects as needed for individual levels of responsibility:
 - Employee Responsibilities
 - Corrective Actions
 - Maintenance
 - Weather Observations
- This Fugitive Dust Control Plan will be reviewed periodically by BREC personnel to assess the effectiveness of the control plan and updated or revised as necessary. The assessment will consist of a review of this plan and a review of all operating processes and procedures pertinent to fugitive dust management at this facility.

Potential Fugitive Dust Sources

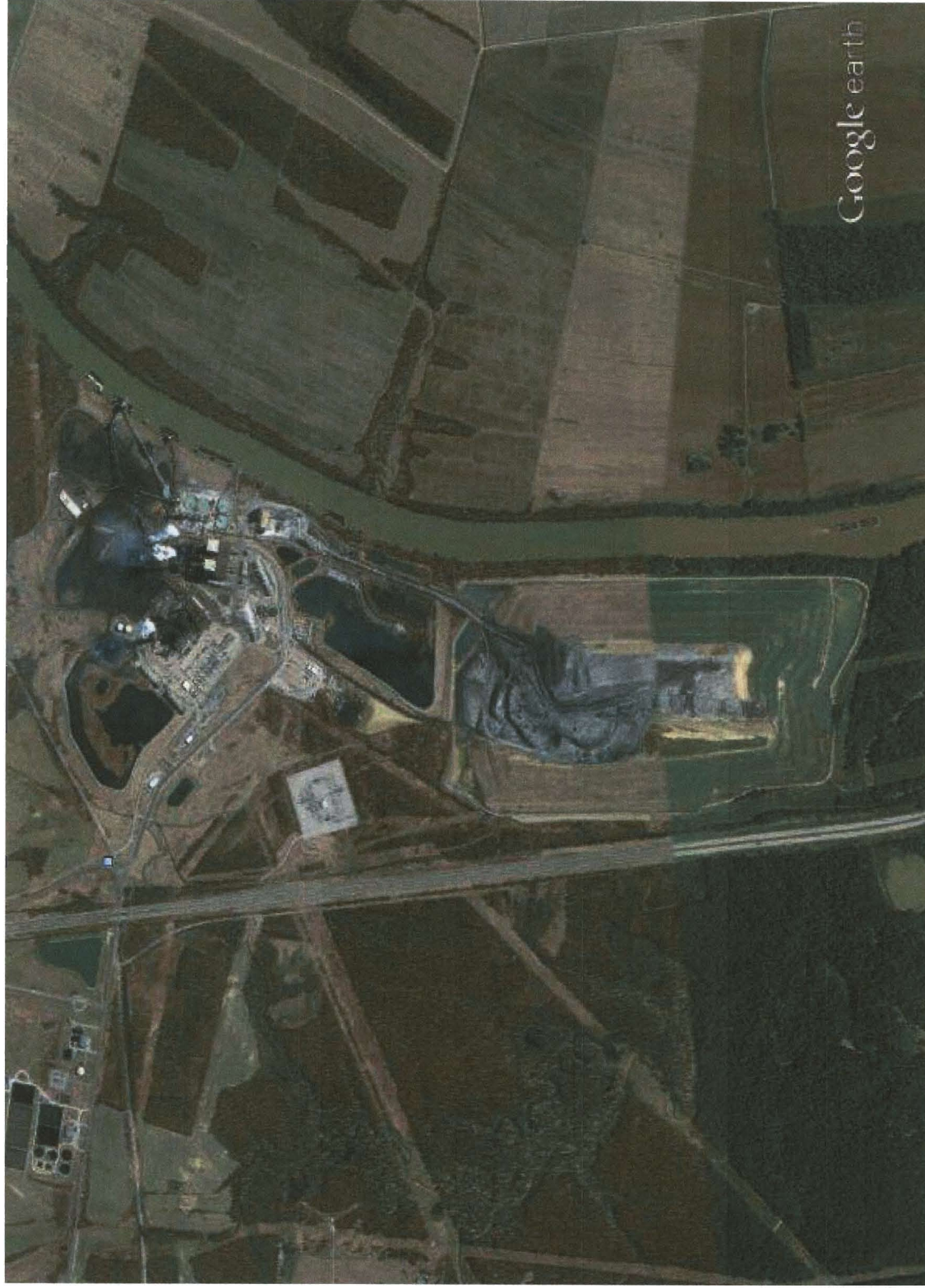
Fugitive Dust Source	Fugitive Dust Source Description	Operating/Control Practice
CCR haul roads	Fugitive dust from haul trucks and mobile equipment	Watering and other fugitive dust suppressant application; road maintenance
CCR service roads	Fugitive dust from light vehicles and trucks	Watering and other fugitive dust suppressant application; road maintenance
CCR stockpiles and silos	Fugitive dust from stockpiles and silos	Limit pile size; natural moisture; water spray as needed during non-freezing temperatures; manage spillage and drop heights
CCR conveying, transfer (including truck loadouts) and storage systems	Fugitive dust from conveying, transfer and storage systems	Manage conveyor spillage and drop heights
CCR landfill	Fugitive dust from landfill and mobile equipment	Watering and other fugitive dust suppressant application; manage during high wind conditions
CCR surface impoundment	Fugitive dust from surface impoundment	Watering and other fugitive dust suppressant application; manage during high wind conditions

Location Map



Google Maps

Site Map

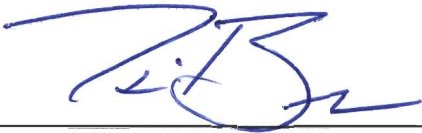


Professional Engineer Certification

Professional Engineer Certification [40 CFR Part 257.80 Air Criteria]

I hereby certify that myself or an agent under my review has prepared this Fugitive Dust Control Plan (Plan), and being familiar with the provisions of the final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), attest that this Plan has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.80. To the best of my knowledge and belief, the information contained in this Plan is true, complete, and accurate; therefore, the Plan shall be implemented as herein described.

This certification in no way relieves the owner or operator of the facility of their duty to fully implement this Plan in accordance with the requirements of the stated regulation. This Plan is valid only to the extent that the facility owner or operator follows the provisions prescribed herein.



Tim D. Brown, P.E.
State of Kentucky License No. 26076

Date: 10/16/2015

Seal:

