ftn Associates Ltd.
water resources / environmental consultants

CCR FUGITIVE DUST CONTROL PLAN
PLUM POINT SERVICES COMPANY, LLC
PLUM POINT ENERGY STATION
CLASS 3N LANDFILL

PERMIT NO. 0303-S3N
AFIN: 47-00461

OCTOBER 9, 2015

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Prepared for

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Prepared by

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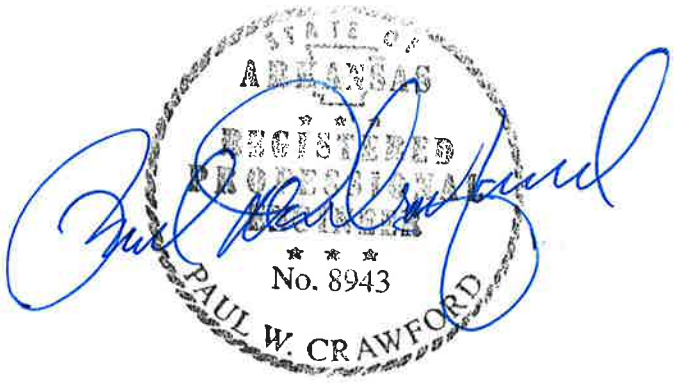
October 9, 2015

PROFESSIONAL ENGINEER'S CERTIFICATION

This CCR Fugitive Dust Control Plan was prepared under the direction and supervision of a qualified, Arkansas-registered Professional Engineer. Mr. Paul Crawford, PE, PG, of FTN Associates, Ltd., was responsible for the overall preparation of the report.



Paul Crawford, AR PE #8943

October 9, 2015
Date

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1.0 INTRODUCTION

1.1 General Information

1.1.1 Plant Site Information

The Plum Point Energy Station (PPES, or the Plant) is owned and operated by Plum Point Services Company, LLC (PPSC). The PPES facility is about 900 acres in size and is located in Mississippi County, approximately 3 miles southeast of Osceola, Arkansas (Figure 1.1). The PPES site is characterized by flat terrain and is situated within the Mississippi River floodplain. The Plant is located in an agricultural area and is surrounded on all sides by farmland.

The Plant generates electricity through the combustion of coal, which produces coal combustion residuals (CCRs; fly and bottom ash) that are captured through the facility air emission control systems. The captured CCRs, along with water and wastewater treatment filter cake, are disposed in the PPES Class 3N Landfill (Landfill), which is permitted by the Arkansas Department of Environmental Quality (ADEQ) (Solid Waste Permit No. 0303-S3N). The PPES generates fly ash, bottom ash, and filter cake as part of the electrical generation process. Approximately 85% of the materials disposed in the Landfill is fly ash, 10% is bottom ash, and 5% is filter cake. The 164.5-acre landfill is located west of the Plant as shown on Figure 1.2.

The CCRs and filter cake are routinely loaded into haul trucks and transported via the main access road from the plant to the Landfill. The access road is identified on Figure 1.2 and is approximately one mile long, with about ½-mile paved (asphalt) and the other ½-mile unpaved (gravel).

1.1.2 Purpose

This plan has been prepared to summarize information related to CCR fugitive dust control practices associated with CCR management at the PPES Landfill and the ash haul road to the Landfill. This manual directs the dust control management at the Landfill facility in accordance with all required permits and regulations.

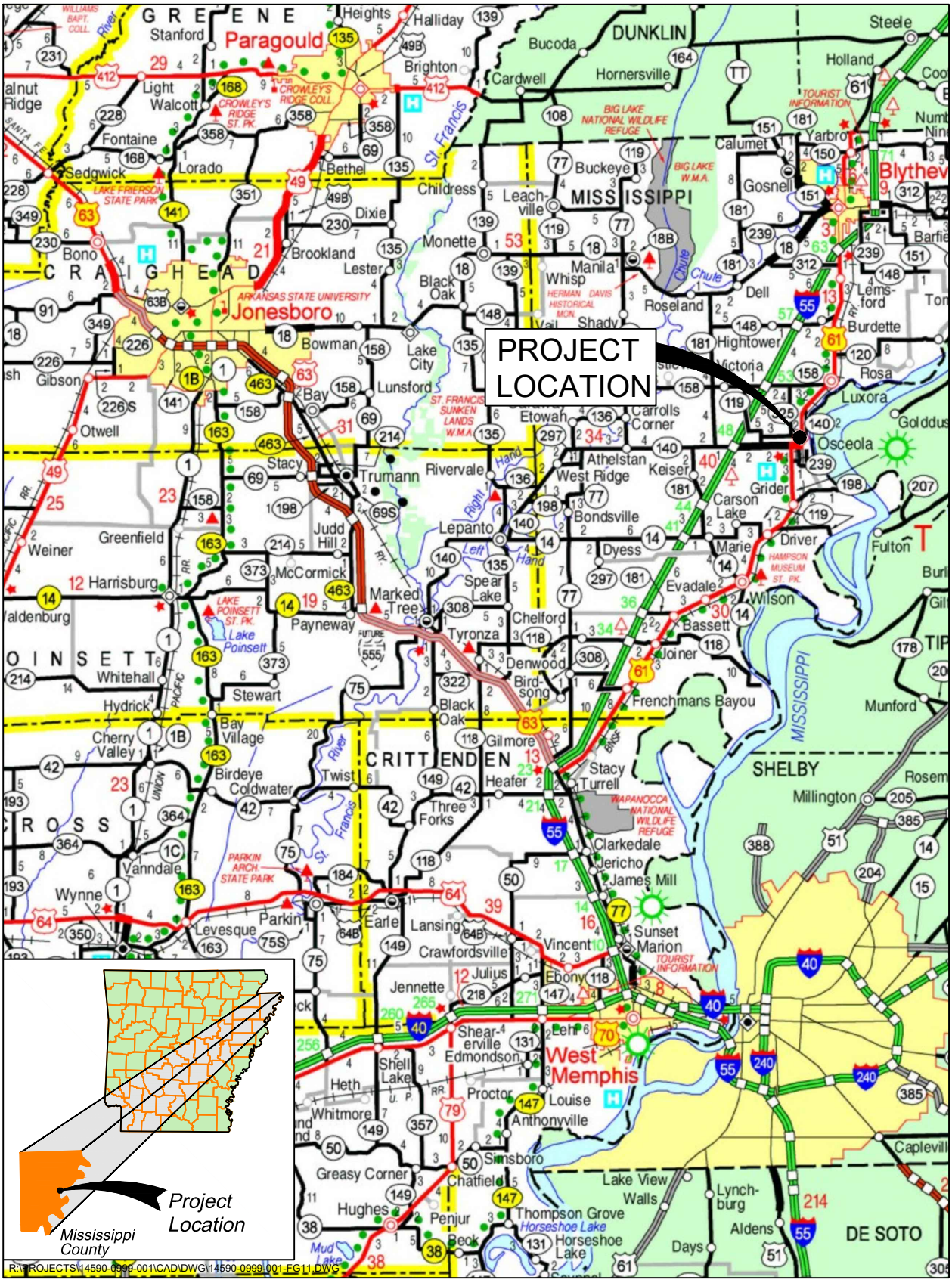

Figure 1.1. Site location map.

Figure 1.2. Plant site map.

In particular, this plan addresses the requirements of §257.80, which states that a CCR Fugitive Dust Control Plan must meet the following criteria:

1. Identify and describe the dust control measures to minimize CCR from becoming airborne at the facility.
2. Include procedures to emplace CCR as conditioned CCR. Conditioned CCR means the CCR must be wetted to a moisture content that will prevent wind dispersal, but will not result in free liquids. A chemical dust suppression agent may be used in place of liquids.
3. Include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.
4. Include a description of the procedures for assessing the effectiveness of the plan.
5. It shall be in force by October 19, 2015.
6. It shall be amended whenever there is change in conditions that would substantially affect the written plan in effect.
7. It shall be certified by a qualified professional engineer that the initial plan, and any amendment of it, meets the requirements of §257.80.

1.1.3 Scope

This document has been prepared to provide information for those individuals involved in fugitive dust control activities at the PPES Landfill. This document includes the following information on fugitive dust control:

1. Potential Sources of Dust,
2. Fugitive Dust Control Measures,
3. Inspection, Monitoring, and Recordkeeping, and
4. Periodic Assessment of the Plan.

1.1.4 Relationship to Other Facility Documents

This document will guide the fugitive dust control measures at the PPES Landfill facility. It should be used in connection with the following supporting documents to ensure efficient and effective operation of the solid waste facility:

1. Final Rule on Coal Combustion Residuals Generated by Electric Utilities ("CCR Rule"), Subtitle D of 40 CFR, Part 257, USEPA, December 2014;
2. Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 22 – Solid Waste Management Rules;
3. PPES Title V Air Permit; and
4. PPES Class 3N Landfill permit and associated permit documents.

This document will be updated over time to reflect current operations and regulations. Revisions to this document shall be placed in the facility's permanent operating record (POR), posted on the facility's website for the Landfill, and submitted to the Arkansas Department of Environmental Quality (ADEQ) as necessary.

1.2 PPES Landfill Facility Description

The PPES landfill facility has been designed for the disposal of CCRs and small amounts of other inert materials generated in the daily operations of the electrical plant. The design of the disposal facility was developed to comply with Regulation No. 22 standards for Class 3N landfills and the CCR Rule.

The PPES Class 3N Landfill is approximately 164.5 acres in size and is designed to have 12 waste disposal cells (Figure 1.3). Waste is hauled to the landfill, dumped, graded, and compacted. As disposal areas are filled to the permitted final waste grades, an interim soil cover is placed on areas that will not receive any additional wastes for more than 30 days. The active portion of the landfill shall be kept to the smallest practical area to minimize leachate production and dust control issues.

Additional design and operational information for the landfill is included in the PPES Landfill permit documents, such as the Operational Plan and Permit Application Report.

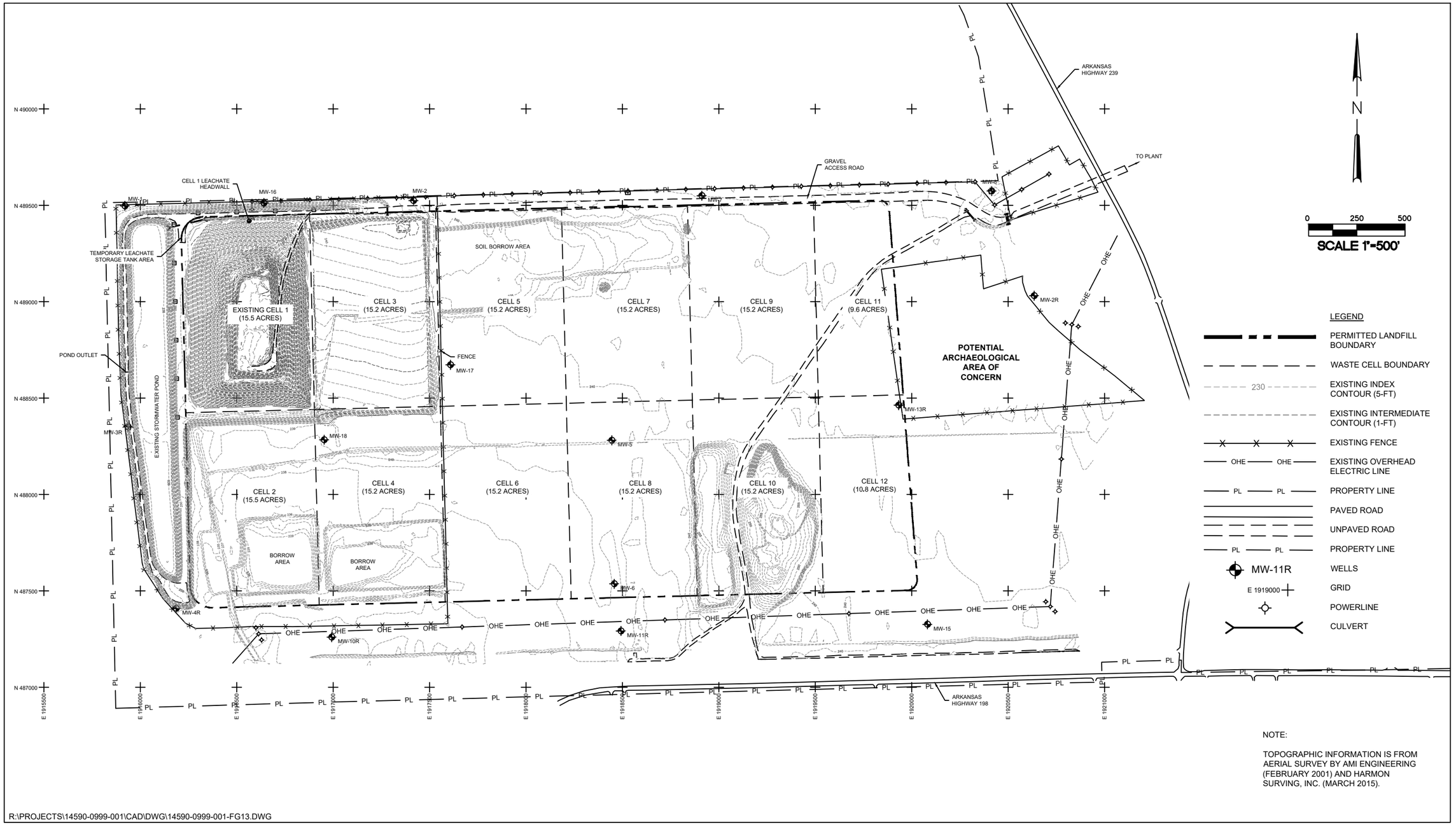

Figure 1.3. Landfill layout.

2.0 CCR FUGITIVE DUST

2.1 Definition of Fugitive Dust

Fugitive dust is any particulate matter generated or emitted from open air operations that becomes airborne and may affect the ambient air quality of a given area. It can be created from the production, handling, transportation, stockpiling, or disposal of CCR materials as well as any soil disturbance (construction) activities. High winds can also create fugitive dust issues, particularly during dry weather.

2.2 Fugitive Dust Sources

Fugitive dust can be generated from a variety of sources associated with construction activities and waste handling, transportation, and disposal operations at the PPES facility. Some more common sources at the PPES facility include:

- Vehicle and motorized equipment movement on paved and unpaved access roads;
- Vegetation removal (clearing and grubbing);
- Earthmoving activities such as grading, excavation, filling, trenching; and
- Loading, hauling, unloading, stockpiling, and grading soils or CCR materials.

This plan focuses on the management of fugitive dust emissions from CCR materials.

3.0 CCR FUGITIVE DUST CONTROL MEASURES

Best management practices will be employed to control fugitive dust emissions associated with the handling of CCR materials. This section of the plan outlines methods to control CCR fugitive dust at the PPES facility.

3.1 Vehicular Traffic

3.1.1 Loading and Hauling CCR Materials to Landfill

CCR materials are loaded into dump trucks and transported to the onsite landfill for disposal by the contracted landfill management company. The haul road is about one mile long, with approximately ½-mile paved (asphalt) and ½-mile unpaved (gravel). The following methods shall be used to control dust associated with hauling the CCR material to the landfill:

1. A speed limit of 15 miles per hour is posted and strictly enforced.
2. The truck loading pad shall be maintained to prevent the spreading of ash; any spilled ash during loading operations shall be cleaned up.
3. The water to ash ratio will be optimized in the pug mill to minimize fugitive dust problems during loading of trucks, but not create excess free liquids.
4. A street sweeper with water spraying capability shall be used by the landfill management company on the paved portion of the haul road at least once per shift (every 12 hours) as weather permits. The frequency of sweeping/wetting may be increased during drier periods. The sweeper is not used when natural conditions (rain or snow) preclude its need or if the Plant is not operating or if the ash generation operation is shut down.
5. The landfill management company will use a water truck to wet the gravel portion of the haul road as weather permits. The rate of application will be sufficient to control fugitive dust emissions, without creating excess runoff from the road. The frequency of the application of water to the haul road will be increased during drier or windy conditions.
6. Truck beds will be cleaned out after disposal in the Landfill on an as-needed basis to remove materials left in the truck bed.

The loading area and haul road will be inspected and maintained by the contracted landfill management company. Records of the sweeping and wetting operations, including the amount of water applied will be kept by the landfill management company. Copies of the records shall be provided to the PPES Plant Environmental Contact.

3.1.2 Other Gravel Access Roads

There are several gravel access roads around and within the Landfill facility. Roads that are not used as the principal CCR material haul route will be wetted on an as-needed basis. The landfill operator will periodically inspect these roads to determine if they require wetting to manage fugitive dust emissions.

3.2 Management of CCR Materials in the Landfill

In general, dust control of the CCR materials within the active portion of the Landfill is managed through the application of water or recirculated leachate (as allowed by the Landfill's Solid Waste Permit). The application of the liquids is done to prevent wind dispersal of the CCR materials without creating free liquids that could runoff from the Landfill (known as "conditioned CCR"). However, in lieu of water or recirculated leachate, the landfill operator may choose to use a chemical dust suppression agent.

The landfill management company shall be responsible for inspecting and monitoring that management of CCR materials in the Landfill are in conformance with this plan. Records of inspections shall be provided to the PPES Plant Environmental Contact and placed in the facility POR.

3.2.1 Disposal and Grading of CCR Materials

Fugitive dust emissions can occur during the disposal and grading of CCR materials in the active landfill disposal area. These activities include dumping, spreading, grading, and compacting of the waste materials. Typically, the waste material has sufficient moisture to minimize dust emission problems during the disposal and grading activities. However, during drier or windy conditions, application of water or recirculated leachate may be required to control dust. The water or recirculated leachate will be immediately incorporated into the waste materials and in such quantities to minimize runoff problems.

3.2.2 CCR Stockpile Management

CCR materials that have been placed and kept in stockpiles shall be assessed for moisture condition prior movement with equipment. If necessary, water or recirculated leachate shall be incorporated with the material to minimize dust emission problems.

3.2.3 Controlling Dust in Open Landfill Areas

During drier and windy conditions, the active area of the Landfill may require wetting with water or recirculated leachate to minimize dust emission problems. The landfill operator will apply the liquids to adequately moisten the CCR material to prevent wind dispersal without creating runoff problems. The frequency of the application of the liquids will depend on the weather conditions. In severe dust emission cases, the operator may elect to use a chemical dust suppression agent in place of the liquids.

4.0 INSPECTION, MONITORING, AND RECORDKEEPING

4.1 Inspection and Monitoring

Daily inspections of the dust control measures specified in this plan will be conducted by qualified personnel. The landfill management company will be responsible for the inspections and enforcing the implementation of dust control measures. The inspection shall review current dust control measures and make recommendations for any adjustments, if necessary. Any chronic visible emission problems shall be immediately addressed.

The inspections will be documented on the inspection form included in Attachment 1 of this plan. A copy of the inspection form shall be submitted to the PPES Plant Environmental Contact.

4.2 Recordkeeping

Copies of all inspections, changes to dust control measures, or revisions to this plan shall be placed in the PPES Landfill POR, which is kept in the PPES Administrative Offices in accordance with §257.107.

Records associated with this plan will be made available to the Solid Waste Management Division of ADEQ on request.

4.3 Citizen Complaints

In accordance with §257.80(b)(3), citizens wishing to file a complaint regarding fugitive dust events at the PPES facility, will be directed to the PPES Plant Environmental Contact or the PPES Plant Manager.

All complaints will be logged, quickly assessed by qualified personnel, and addressed as quickly as possible. All complaints and responses will be recorded on the Citizen Complaint Form located as Attachment 2. Copies of the complaint forms will be placed in the Landfill's POR.

5.0 PLAN ASSESSMENT

In accordance with §257.80(b)(4), this plan shall be periodically assessed for its effectiveness. At a minimum, the plan will be reviewed during the preparation of the annual CCR fugitive dust control report; more frequent assessments shall be done if there is persistent chronic dust emission problems associated with CCR material management activities. Any successful new dust control measures identified and implemented will be incorporated into this plan. The revised plan will be placed in the PPES Landfill POR, posted on the publicly-accessible website, and PPES will notify the ADEQ that the modified plan has been placed in the POR.

ATTACHMENT 1

Dust Control Monitoring Worksheet

PPES FACILITY CCR DUST CONTROL MONITORING WORKSHEET

Month: _____ **Year:** _____

Date	Time of Inspection	Inspector's Initials	Area Inspected Haul Road or Landfill	Actively Working (Y/N)	Weather Conditions				Sweeper Active (Y/N)	Water Truck Active (Y/N)	Other Dust Control Measures Being Used	Is Dust Present (Y/N)	Comments
					Temperature	Dry/Wet/ Humid	Wind Conditions/ Speed	Currently Raining? (Y/N)					
1	AM:												
	PM:												
2	AM:												
	PM:												
3	AM:												
	PM:												
4	AM:												
	PM:												
5	AM:												
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14	AM:												
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15	AM:												
	PM:												
16	AM:												
	PM:												

Date	Time of Inspection	Inspector's Initials	Area Inspected Haul Road or Landfill	Actively Working (Y/N)	Weather Conditions				Sweeper Active (Y/N)	Water Truck Active (Y/N)	Other Dust Control Measures Being Used	Is Dust Present (Y/N)	Comments
					Temperature	Dry/Wet/ Humid	Wind Conditions/	Currently Raining?					
17	AM:												
	PM:												
18	AM:												
	PM:												
19	AM:												
	PM:												
20	AM:												
	PM:												
21	AM:												
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31	AM:												
	PM:												

ATTACHMENT 2

Citizen Complaint Form

PLUM POINT ENTERGY STATION
CCR FUGITIVE DUST CITIZEN COMPLAINT FORM

Complaint Information:

Received By: ☐ Phone Call ☐ Public Website Date Received: _____

Name of Individual Filing Complaint: _____

Address: _____

_____

Phone Number: _____

Complaint: _____

_____

_____

_____

_____

Response to Complaint:

Individual Reviewing Complaint: _____

Date of Review: _____

Findings: _____

_____

_____

Proposed Corrective Action (If Required): _____

_____

_____

_____

Corrective Action Completed (Sign): _____ Date: _____