



CCR FUGITIVE DUST CONTROL PLAN

La Cygne Generating Station

26166 East 2200th Road, La Cygne, Kansas 66040

April 16, 2021

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Revision History

Revision Number	Revision Date	Section Revised	Summary of Revisions
0	10/19/2015	N/A	Original Format
1	5/3/2017	2	CCR management measures added.
2	2/18/2021	All	Format, company name, control measures, and contacts updated.

1.0 Background

The purpose of this CCR Fugitive Dust Control Plan (Plan) is to identify and describe the Coal Combustion Residuals (CCR) fugitive dust control measures used to effectively minimize the potential for CCR to become airborne at the La Cygne Generating Station (La Cygne). The following sections provide background information on the facility, CCR, and related regulatory requirements.

1.1 Facility Information

Name of Facility:	La Cygne Generating Station (La Cygne)
Name of Operator:	Evergy Metro, Inc (Evergy)
Operator Mailing Address:	25166 East 2200 Road, La Cygne, KS 66040
Location:	Approximately seven miles northwest of La Cygne, Kansas.
Facility Description:	The La Cygne Generating Station is a coal-fired electric generating station that contains one or more coal-fired units that produce fly ash, economizer ash, bottom ash and gypsum. CCRs are managed in a landfill and previously in three CCR impoundments including the Bottom Ash Impoundment (closed), Upper AQC Impoundment (in closure) and Lower AQC Impoundment (in closure). Fly ash is collected and pneumatically conveyed to silos where it is off-loaded for beneficial use or transported via truck to the landfill. Economizer ash is collected in a silo then trucked to the landfill. Bottom ash (slag) is handled through a submerged flight conveyor to paved stack-out areas where it is loaded into trucks for beneficial use or transported to the landfill for storage or disposal. Gypsum from both units is conveyed via conveyor and radial stacker to a concrete-contained stack-out area where it is loaded into trucks and transported to the landfill. The CCR units are permitted under Kansas Department of Health and Environment (KDHE), Bureau of Waste Management (BWM), Permit No. 0337.

1.2 Coal Combustion Residuals

CCR materials are produced at coal-fired power plants when coal is burned to produce electricity. CCR materials are managed by coal-fired power plant sites, including on-site storage, processing (such as dewatering), and final disposal, typically in CCR landfills. CCRs generated at the facility include fly ash, bottom ash, flue gas desulfurization (FGD) materials, and economizer ash. General characteristics of these CCR materials are described below.

- **Fly Ash** – Fly ash is captured from exhaust (flue) gases by emissions control equipment such as baghouses. Fly ash is characterized by clay-sized and silt-sized fine grain materials, consisting of silica, calcium, alumina, iron and trace heavy metals. Due to the small particle size and consistency, fly ash can often be mobilized by windy conditions when it is dry. Typically, the facility burns coal which generates fly ash with self-cementing properties in the presence of water. For this reason, a crust generally forms on its surfaces, reducing the potential for dust issues from fly ash storage areas.
- **FGD Materials** – FGD materials such as gypsum are produced by FGD emissions control systems, which are designed and operated to remove sulfur dioxide (SO₂) from exhaust (flue) gases. FGD materials are generally produced as a wet sludge, which is then dewatered and managed as a dry material. Under certain conditions, FGD materials can form a crust on surfaces, reducing potential for dust issues from FGD storage areas.
- **Bottom Ash** – Bottom ash is characterized by sand-sized and gravel-sized materials, which settle by gravity to the bottom of a coal-fired furnace. Due to the heavier, larger-grained material, it is less prone to being mobilized under windy conditions when dry.
- **Economizer Ash** - The majority of the economizer ash is plus 200 mesh and is generally referred to as having a popcorn consistency. This material is a type of fly ash but is generated and handled separately from fly ash. For the purposes of dust management, this material has characteristics similar to bottom ash.

1.3 Regulatory Requirements

This plan has been developed for the La Cygne Generating Station in accordance with 40 CFR 257.80(b). The CCR Rule requires preparation of a CCR Fugitive Dust Control Plan for facilities including CCR Landfills, CCR Surface Impoundments, and any lateral expansion of a CCR unit. Selected definitions from the CCR Rule are provided below.

- **CCR (coal combustion residuals)** 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** means solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.
- **CCR landfill** means an 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 coal 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 surface impoundment** means a natural topographic depression, manmade excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.
- **CCR unit** means any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.
- **Qualified professional engineer** means an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.

The CCR Rule requires owners or operators of these CCR facilities to adopt and document “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” (40 CFR 257.80). Owners/Operators of existing, active CCR unit were required to prepare a CCR Fugitive Dust Control Plan “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” (40 CFR 257.80 (b)(5)). This plan has been developed to meet these requirements and is in addition to any other Occupational Safety and Health Act (OHS) standards applicable to this facility.

2.0 CCR Fugitive Dust Source & Control Measures

Potential CCR fugitive dust sources at the site generally include, loading, unloading, transportation in trucks or on conveyors, stockpiles, vehicle traffic, and landfill placement. These general sources are categorized for La Cygne for the purposes of CCR fugitive dust management as follows:

- (1) CCR short-term storage and management areas;
- (2) CCR Landfill Units;
- (3) CCR Surface Impoundment Units; and
- (4) Facility Roads

The La Cygne Generating Station has implemented these dust control measures, which are applicable and appropriate for site conditions in accordance with 40 CFR 257.80(b)(1).

2.1 CCR Short-Term Storage and Management Areas

The following CCR dust control measures are typically implemented for CCR short-term storage and management areas including stack-out areas, silos and load-out areas.

- During short-term storage, a partial enclosure is maintained to provide a wind break around the CCR gypsum and slag stack-out staging areas. Gypsum is pre-conditioned, and the gypsum conveyor is covered.
- CCR dust from fly ash and economizer ash is minimized by use of an enclosed pneumatic transport system and silos for staging.
- Fly ash designated for the CCR Landfill is conditioned prior to loading into trucks and/or at the landfill.
- During loading and unloading activities, drop height is reduced as needed to reduce the potential for mobilization of CCR dust.
- During high wind conditions, loading and management operations may be modified, reduced or halted.
- A street sweeper is used to clean spilled CCR to prevent dusting.
- Water spray is applied as necessary to CCR prior to and/or during staging.

2.2 CCR Landfill Units

CCR is conditioned if needed before being placed into the landfill. Water will be added as needed to the CCR materials to reduce wind dispersal and improve compaction during CCR placement in landfill units and, as needed, prior to/during excavation.

The following additional dust control measures may also be implemented at the landfill.

- Water spray is applied to the exposed CCR, including on the working face, as needed.

- CCR being excavated/relocated/regraded may be conditioned using water spray, sprinklers, or fogging systems. Alternatively, appropriate chemical dust suppression agents may be applied, as needed
- During high wind conditions, unloading operations at the working face may be reduced or halted.
- If both La Cygne wet ash conditioners A & B experience an operational failure, a mobile fly ash conditioning system will be employed to maintain fly ash moisture content.

After final elevations are achieved, the final cap and cover, including vegetation, will be installed and maintained to reduce the potential for CCR becoming exposed to the atmosphere.

2.3 CCR Surface Impoundment Units

In CCR surface impoundments, CCR is stored in an encapsulated matrix or in a mixture with high water content, which would not be expected to cause dusting. If CCR(s) are moved/dredged/removed from or added to a surface impoundment, additional dust control measures such as adding water or dust suppressants will be applied as necessary during or prior to loading/unloading and subsequent transportation for disposal or beneficial reuse if the CCR becomes dry. Additional measures include:

- Reduced drop heights for CCR to control dust generation
- Wind barriers, enclosures, and tarps, if needed
- Compaction of CCR
- CCR being excavated/relocated/regraded may be conditioned using water spray, sprinklers, or fogging systems. Alternatively, appropriate chemical dust suppression agents may be applied, as needed.
- During high wind conditions, unloading operations may be reduced or halted.

After final elevations are achieved, the final cap and cover, including vegetation as required by the closure plan, will be installed and maintained to reduce the potential for CCR becoming exposed to the atmosphere and dried.

2.4 Facility Roads

The following dust control measures are typically implemented for roads in active use for CCR management activities at the facility.

- Reduced vehicle speed limits are enforced to reduce dust mobilization.
- Enclosed tank trailers will normally be used to carry fly ash.
- During high wind conditions, operations and related traffic may be reduced or halted.
- Prior to transportation, if needed, CCR may be covered using tarps to reduce the potential for CCR becoming airborne during truck transport. If tarps are not practical or dusting is observed, water may be added to CCR prior to transportation.
- During non-freezing weather, unpaved roads at the facility are sprayed multiple times per day

using water trucks.

- Paved roads at the facility will be cleaned by a sweeper/vacuum truck and, during periods of high traffic and/or dry weather, may also be sprayed by water trucks.

3.0 Citizen Complaint Log

A specific requirement of the CCR Fugitive Dust Control regulations (40 CFR 257.80(b)(3)) requires owners and operators of all CCR units to develop and implement formal procedures within the Plan for logging citizen complaints involving CCR fugitive dust events.

Complaints received by La Cygne or Evergy will be recorded by/forwarded to the designated point(s) of contact for logging and recordkeeping. La Cygne will maintain records of concerns about CCR fugitive dust from the facility in accordance with 40 CFR 257.80(b)(3) using the CCR Fugitive Dust Complaint Record provided in Appendix A.

Contact Information: Environmental Services Department

Address: Evergy
818 South Kansas Avenue
Topeka, Kansas 66601

Alternate:
PO Box 418679
Kansas City, MO 64141-9679

E-mail Address: EvergyCCR@evergy.com

Phone Number: 888-471-5275
Alternate:
(800) 383-1183

4.0 CCR Fugitive Dust Control Plan Assessment and Amendment

Evergy assesses the effectiveness of CCR Fugitive Dust Control Plans, annually, in accordance with 40 CFR 257.80(b). If practical and more effective prevention and control technology has been field-proven at the time of the review and will significantly improve dust controls, this CCR Fugitive Dust Control Plan will be amended to reflect the changes. Amended plans are certified by a qualified Professional Engineer as required by 40 CFR 257.80(b)(7). All plan changes are documented using the Revision History which prefaces this Plan.

Based on the assessment, Evergy may choose to amend this Plan if measures are deemed ineffective or if changes have been made to the areas being managed, the dust control measures, and/or other operating practices are required to continue compliance with the regulatory standards. Amendments to the current Plan will be completed in accordance with §257.80(b)(6) of the Final CCR Rule.

The state of Kansas will be notified in accordance with 40 CFR 257.106(g) when this Plan has been amended and placed in the facility operating record and on the Evergy CCR internet site.

5.0 ENGINEERING CERTIFICATION

Pursuant to 40 CFR 257.80 and by means of this certification, I attest that:

- (i) I am familiar with the requirements of the CCR Rule (40 CFR 257);
- (ii) I, or my agent, have visited and examined the La Cygne Generating Station;
- (iii) the CCR Fugitive Dust Control Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the CCR Rule;
- (iv) the CCR Fugitive Dust Control Plan meets the requirements of 40 CFR 257.80(b); and



Walter J. Martin, P.E.

Printed Name of Qualified Professional Engineer

Appendix A

CCR FUGITIVE DUST COMPLAINT RECORD

Site Name

**Time & Date of
Correspondence**

Name of Citizen

Phone Number

Mailing address

Email Address

**Topic of
Correspondence**

**Describe Observed
Event (include
date/time; wind &
conditions, other
info)**

**Required Corrective
Actions or Follow-
Up, If Applicable**
