2022 ANNUAL CCR FUGITIVE DUST CONTROL REPORT

JEFFREY ENERGY CENTER

25905 JEFFREY ROAD, ST. MARYS, KANSAS

December 10, 2022

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Revision History

Revision Number	Revision Date	Section Revised	Summary of Revisions
0.0	12/10/2022	N/A	Original Version

1.0 Background

The purpose of this Annual CCR Fugitive Dust Control Report (Report) is to describe the Coal Combustion Residuals (CCR) fugitive dust control actions taken over the past year to control CCR fugitive dust; provide a record of all citizen complaints received; and to provide a summary of corrective measures taken at the Jeffrey Energy Center (JEC). The following sections provide background information on the facility, CCR, and related regulatory requirements.

1.1 Facility Information

Name of Facility:	Jeffrey Energy Center (JEC)
Name of Operator:	Evergy Kansas Central, Inc (Evergy)
Operator Mailing Address:	25905 Jeffrey Road, St. Mary's, Kansas 66536
Location:	4.5 miles north of Belvue, Kansas and approximately 4.3 miles west of Highway 63.
Facility Description:	Evergy, Inc owns and operates industrial landfills and a surface impoundment at the Jeffrey Energy Center (JEC) in Pottawatomie County, Kansas. Total generating capacity of the facility is approximately 2,175 MW. Coal Combustion Residuals (CCR) associated with burning coal include bottom ash, fly ash, economizer ash, and flue gas desulfurization materials (FGD). CCRs are currently placed in on-site active combustion byproduct landfills located on JEC property. The combustion byproduct landfills are permitted under Kansas Department of Health and Environment (KDHE), Bureau of Waste Management (BWM), Permit No. 359.

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.

1.3 Regulatory Requirements

This report has been developed for the Jeffrey Energy Center in accordance with 40 CFR 257.80 (c). The CCR rule requires preparation of an Annual CCR Fugitive Dust Control Report for facilities including CCR landfills, CCR surface impoundments, and any lateral expansion of a CCR unit. Selective 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.
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> **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.
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> **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.

The CCR Rule specifically requires that owners or operators of CCR facilities develop and 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" (40 CFR 257.80). Evergy continues to follow the practices described in the Jeffrey Energy Center CCR Fugitive Dust Control Plan as revised April 16, 2021. The CCR Rule requires owners or operators to "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." In accordance with the same section of the CCR Rule, this report has been developed and placed within the CCR operating record on December 10, 2022.

2.0 CCR Fugitive Dust Controls

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 JEC for the purposes of CCR fugitive dust management as follows:

(1) Temporary Storage Areas
(2) CCR Impoundments
(3) CCR Landfill Units
(4) Haul Roads
(5) General Housekeeping

Between December 1, 2021 and December 1, 2022, the Jeffrey Energy Center implemented dust control measures and actions as follows.

2.1 Temporary Storage Areas

Fly ash was initially collected within enclosed structures at the plant and pneumatically conveyed into silos. These fly ash silos are above ground silos that have controlled loading into enclosed haul trucks. Trucks enter under the silos on a concrete pad for loading. A chute is lowered on top of the truck and the CCR is then loaded into the enclosed truck. The trucks are equipped with lids that are closed mechanically or manually once loading of the fly ash is complete and the chute is removed. Fugitive dust potential is minimized by minimal exposure of CCR to the atmosphere through this temporary storage and loading process. In the event that de minimis amounts of CCRs were observed on the loading pad, the CCRs were collected and properly disposed. Under this process, Fly Ash was loaded into enclosed trucks for either off-site beneficial use or disposal in the on-site landfill. This material was then disposed of in the on-site Fly Ash Area 1 Landfill.

Economizer ash generated in enclosed structures in the plant was mixed with bottom ash and wetted prior to it being stacked outside the plant. This application of water minimizes the dust formation in the stacked CCR material.

FGD gypsum was initially handled at the plant was stacked in one enclosed building to act as a barrier against wind. This FGD lading area relied on front end loaders to load haul trucks for either off-site beneficial use or on-site disposal at the FGD Scrubber Gypsum Landfill or other permitted units. Haul trucks utilized canopies to protect the CCR material to minimize dust generation.

2.2 CCR Impoundments

Evergy has no active CCR surface impoundments at JEC. The inactive Bottom Ash Pond and Bottom Ash Settling Area have historically been used for the settling and processing of bottom ash, fly ash, and FGD material. These areas ceased receipt of waste in April 2021.

2.3 CCR Landfills

The Bottom Ash Landfill, the Fly Ash Landfill and the FGD Landfill were all utilized for the disposal of CCRs generated on-site. Fugitive dust generation was managed by the following actions: CCR was placed into the CCR units from haul trucks using minimal drop heights. The CCR material was conditioned via water truck as the material was placed or, at a minimum, on the same day as placement to develop a surficial crust to prevent fugitive dust mobilization. These areas were observed by Evergy personnel and if a portion of settled material became exposed above the water elevation, water was applied to prevent mobilization. Haul trucks limited travel speeds to 10 mph on active areas. Drivers avoided driving on active areas of the landfill and drove in Evergy-directed travel paths to avoid area agitation. Water was used as the primary means of suppressing dust. Dust suppressants were utilized to minimize fugitive dust when determined appropriate and a log was maintained to record water usage. Any areas that reached final grade received appropriate cover materials in accordance with applicable state permit requirements.

2.4 Haul Roads

Both paved and unpaved roads were used to transport CCRs either off-site or to the on-site landfills. Paved roads at the facility were cleaned and maintained, as needed. Hauler equipment was serviced to minimize leaking and maintain normal operations. Posted speed limits were enforced during transport to limit mobilization.

2.5 General Housekeeping

In addition to the location specific measures, spilled and/or deposited CCR material within the facility was cleaned within a timely matter.

3.0 Citizen Complaints

Evergy has implemented a plan for logging citizen CCR dust complaints in accordance with 40 CFR 257.80(b)(3). Under this plan, all records of any citizen concerns regarding CCR fugitive dust will be maintained within the Annual CCR Fugitive Dust Control Report to document the complaint and to detail corrective actions.

On December 12, 2021 at 12:24, Jeffrey Energy Center was contacted by the Pottawatomie County Sheriff Office. In this communication, the sheriff office indicated that Mr. Travis Tyneck stated that he observed smoke or some manner of visual disturbance in the grasslands north of Jeffrey Energy Center. Mr. Tyneck initially voiced concerns that a potential grass fire may have started. Following this communication, facility personnel investigated the reported smoke/visual obstruction. It was discovered that this disturbance was due to dust becoming mobilized and moving with prevailing wind patterns. Wind speed conditions during this event were observed at 20 miles per hour, with occasional gusts up to 30 miles per hour.

Following this discovery, JEC personnel contacted Boral Resources to investigate possible reasons for the increased mobilization and to find the root cause for the disturbance. Boral communicated that they were unable to properly condition the CCR material, as required within the JEC Fugitive Dust Control Plan, due to a mechanical failure with the water truck on-site. This water truck was out of service for repair and a secondary conditioning mechanism had not been identified.

Once this root cause had been identified, serval corrective measures were enacted to meet with JEC's fugitive dust management obligations. First, a replacement water truck was secured and delivered to JEC on December 12th, 2021 at 15:00. This truck was immediately put into service and conditioning of the CCR material, haul roads, and other required areas resumed. Second, fugitive dust conditions at the landfill and facility were observed as the conditioning process was resumed and conditions were tracked to ensure that the initial disturbance had been addressed. Finally, JEC environmental personnel scheduled and completed a discussion with Boral Resources on December 15, 2021.The focus of this discussion centered upon a review of the JEC Fugitive Dust Control Plan and discussion of the received citizen compliant. This discussion included a review of the compliance obligations detailed within the plan and the proper chain of communication regarding this event's failure.

In accordance with 40 CFR 257.80(b)(3), a copy of CCR Fugitive Dust Complaint Record, included within the JEC CCR Fugitive Dust Control Plan, is included within this report in Appendix A.

No additional complaints were received by JEC or Evergy between December 1, 2021 and December 1, 2022.

4.0 Summary of Corrective Measures

The Evergy Environmental Services Department performed an annual review of logged complaints and of the CCR dust control measures in place for Jeffrey Energy Center. In general, Evergy found the measures in place were effective, and no changes were necessary during the period of December 1, 2021 to December 1, 2022.

Failures identified during the compliance period centered around communication failures regarding field and equipment conditions, resulting in the citizen complaint logged on December 12th, 2021. These failures were addressed with the following corrective actions: First, a replacement water truck was secured and delivered to JEC on December 12th, 2021 at 15:00. This truck was immediately put into service and conditioning of the CCR material, haul roads, and other required areas resumed. Second, fugitive dust conditions at the landfill and facility were observed as the conditioning process was resumed and conditions were tracked to ensure that the initial disturbance had been addressed. Finally, JEC environmental personnel scheduled and completed a discussion with Boral Resources on December 15, 2021.The focus of this discussion centered upon a review of the JEC Fugitive Dust Control Plan and discussion of the received citizen compliant. This discussion included a review of the compliance obligations detailed within the plan and the proper chain of communication regarding this event's failure.

No additional corrective measures were instituted by JEC or Evergy between December 1, 2021 and December 1, 2022.

Appendix A

CCR FUGITIVE DUST COMPLAINT RECORD

Site Name	Jeffrey Energy Center
Time & Date of Correspondence	12/12/2021 12:24PM
Name of Citizen	Travis Tyneck
Phone Number	785-617-0443
Mailing address	
Email Address	
Topic of Correspondence	Grass or Brush Fire, grass fire North of Jeffrey seeing a lot of smoke.
Describe Observed Event (include date/time; wind & conditions, other info)	On 12/12/21 at 12:00PM wind speed was 20 mph with gust at 30+ mph. Boral Resouces was unable to conditioned the CCR material in Jeffrey Energy Center (JEC) Fly Ash landfill prior to 12/12/21 due to water truck being unavailable for repairs.
Required Corrective Actions or Follow-Up, If Applicable	Rental water truck was delivered to JEC on 12/12/21 by 3:00PM to condition fly ash. Follow up meeting Boral was completed on 12/15/21 to review JEC CCR Fugitive Dust Control Plan.