



March 6th, 2019

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RE: Grand River Dam Authority
Solid Waste Permit No. 3549012
Annual CCR Fugitive Dust Control Report

Introduction

The purpose for this letter is to provide an annual CCR fugitive dust control report for the Grand River Dam Authority Grand River Energy Center, located in Chouteau, Oklahoma. The requirement for this report is found in Oklahoma Administrative Code (OAC) 252:517-13-1(c). This report describes the actions taken by GRDA to control CCR fugitive dust, provides a record of citizen complaints, if any, 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, which was October 12, 2015.

Subsequent reports will be due one year after the date of completing the previous report. The report is subject to the recordkeeping requirements specified in OAC 252:517-19-1(g), the notification requirements of OAC 252:517-19-2(g), and the internet requirements specified in OAC 252:517-19-3(g). This letter serves as notification that this report has been placed in the facility operating record, and has been placed on the GRDA CCR website.

General Description of CCR Facility

The Grand River Energy Center (GREC) is located three (3) miles east of Chouteau, Oklahoma on Highway 412. There are two coal fired boilers at GREC, and these are referred to as Unit 1 and Unit 2. Both Units 1 and 2 produce Coal Combustion Residue (CCR). Unit 1 has not been operated since April 2017, and will no longer produce CCR. A combined cycle natural-gas fueled facility, referred to as Unit 3, has been built, and is commissioned. Most CCR from the facility is sold for beneficial purposes.

The primary CCR produced is called flyash. Flyash is collected and then transported to the ash storage silos using pneumatic piping.

The secondary CCR produced is called bottom ash, and bottom ash is initially collected at the bottom of the boiler. Bottom ash has a granular and gravel texture and is dampened with water during collection. Fugitive dust is therefore inherently minimized.

Flyash CCR from the Unit 2 boiler is collected after a sulfur dioxide scrubber, and is also sold for beneficial purposes, but not concrete because of the scrubber process. Flyash that is not sold for beneficial purposes is transported to an on-site permitted CCR landfill. Flyash from Unit 2 that needs to be transported to the landfill is conveyed downward from the storage silos to Pin & Paddle Mixers, which mix water



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SALINA PUMPED STORAGE PROJECT
PO Box 609, Salina OK 74365
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TRANSMISSION HEADQUARTERS
PO Box 1128, Pryor OK 74362

with the flyash CCR to produce Conditioned CCR for fugitive dust control. This Conditioned CCR is loaded into trucks inside a contained loading zone beneath the storage silos. The trucks then transport the Conditioned CCR to the permitted on-site landfill.

Enclosed trucks transporting CCR off-site are rinsed with water as necessary at an on-site Truck Wash Station.

CCR Fugitive Dust Control Measures Implemented

The Grand River Dam Authority GREC facility utilizes the following CCR fugitive dust control measures:

Locating CCR inside an enclosure or partial enclosure

An appropriate partial enclosure is located underneath the ash storage silos. Pin and Paddle Mixers for mixing in water and thus producing Conditioned CCR are located above the partial enclosure

Operating a water spray or fogging system

An appropriate water spray system is located at the entrance to the partial enclosure beneath the ash silos. Two large water trucks are used to produce wide-pattern water sprays for Fugitive Dust Control on roads and landfill operations.

Reducing fall distances at material drop points

Appropriate loading chutes are utilized for loading trucks. Dry CCR for off-site sale is loaded in covered trucks using a telescoping chute, equipped with vacuum system and a baghouse. An extended loading chute with flexible panels is used for loading of Conditioned Ash from Pin & Paddle Mixers.

Using wind barriers, compaction, or vegetative covers

The CCR landfill has sloped sides that have a vegetative cover on the south and west sides, and is appropriate for the prevailing wind direction.

Establishing and enforcing reduced vehicle speed limits

The site speed limit is limited to 15 mph. The site has armed police officers 24 hours/day that provide security and safety oversight.

Paving and sweeping roads

Site roads are generally paved, and periodically wetted with a water truck.

Covered trucks transporting CCR

Trucks are used for transporting Conditioned CCR to the ash landfill, and water is applied in the Pin & Paddle Mixers to reduce fugitive dust.

Reducing or halting operations during high wind events

Operation personnel are instructed to curtail ash landfill operations during extreme high wind events.

Applying daily cover

Water trucks are used to minimize fugitive dust, and application of a daily cover is not needed for the circumstances.

Applying cover according to closure and post closure plan

Completed landfill is covered with layers of clay and topsoil per the landfill requirements, and closure and post-closure plans.

Citizen Complaints

There have been no citizen complaints since the implementation of the CCR Fugitive Dust Control Plan in October 2015.

Plan Review and Corrective Measures

In accordance with OAC 252:517-13-1(b)(4), GRDA conducted an annual assessment of effectiveness of the CCR Fugitive dust control plan on December 17th, 2018.

The Vice President, accompanied by appropriate GREC management staff, performed an annual inspection on December 17th, 2018. The CCR Plan was reviewed to determine if the written plan was comprehensive, effective, and current. Inspection reports were reviewed to identify any concerns or deficiencies. CCR equipment, condition, and performance were also reviewed.

Following review of the plan, the CCR handling equipment was inspected for operational readiness and good housekeeping. The CCR landfill was also inspected for proper condition.

The CCR Fugitive Dust Control Plan was determined to be comprehensive and effective. Several minor administrative corrections were noted, and made to the plan.

The CCR handling equipment was determined to be in good order and effective.

The CCR landfill was determined to be in good order. Areas of erosion, identified previously, had been graded and seeded, the inspection confirmed that the corrective action was effective.

There was no fugitive CCR dust observed during the inspection.

No corrective measures to the plan, CCR handling equipment, or CCR landfill were required.

Following the review and inspection, a written summary was created, reviewed and signed by GREC management staff, and placed in the operating record.

If you have any questions please do not hesitate to contact me at (918)824-7565 or, if more convenient, via e-mail at mbednar@grda.com.

Sincerely,



Michael L. Bednar
Manager of Environmental Compliance
Grand River Dam Authority