2019 ANNUAL FUGITIVE DUST CONTROL PLAN REPORT

CITY UTILITIES OF SPRINGFIELD, MISSOURI

PREPARATION DATE: 12/11/2019

PREPARED BY: Gerad Fox, PE

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PLAN CERTIFICATION

Gerad Fox, Missouri Professional Engineer, License Number 2013019048, hereby certifies that the CCR fugitive dust control plan annual report set forth herein meets the requirements of 40 CFR Section 257.80(c).

Name: Gerad Fox

Signature:

Date: 12/11/19

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12/11/19

CUS 2019 CCR Annual Fugitive Dust Control Plan Report

Per 40 CFR Part 257.80(c) City Utilities of Springfield (CUS) is required to prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner and operator to control CCR fugitive dust. The report below will serve as the CUS annual CCR fugitive dust control report and includes:

1. Description of Actions Taken to Control CCR Fugitive Dust
2. CCR Fugitive Dust Incidents Reported to the Missouri Department of Natural Resources (MDNR)
3. Record of Citizen Complaints
4. Summary of Any Corrective Actions Taken

Description of Actions Taken to Control CCR Fugitive Dust

CUS has taken the following actions in order to minimize fugitive dust from our CCR handling and transport at the John Twitty Energy Center (JTEC).

- The use of CCR conditioning equipment to moisten all CCR being transported to the on-site permitted CCR landfill.
- Performing preventative and required maintenance on all CCR conditioning equipment as per manufacturer recommendations.
- Maintaining contracts with the original equipment manufacturer (OEM) of all CCR conditioning equipment.
- JTEC Unit 1 bottom ash process procedures include dewatering in order to achieve an appropriate conditioned consistency, absent of free liquids, prior to transport to the on-site CCR landfill.
- Haul road watering and sweeping as necessary and as a condition of the air quality Title V Operating Permit (i.e., OP2015-055A) issued and amended by the MDNR.
- Watering CCR active vehicular areas within the landfill.
- Limiting/Minimizing CCR transport, placement, and other landfill activities during high winds where effective watering cannot be achieved. Preparations in advance of pending changes in weather patterns have proven successful.
- Reducing vehicle speeds as necessary during transport.
- Housekeeping activities to maintain clean loading areas.
- Washing transport vehicle as necessary.
- Traveling on designated haul roads as required by our air quality Title V Operating Permit.
- Accepting only conditioned CCR in the landfill. Any exceptions to this will be recorded and noted in the Summary of Corrective Actions Taken section of this report.
- Emplacing and compacting CCR in its permanent resting place as soon as practicable.
- Placing the required clay and topsoil to close out the utilized sections of the landfill, followed by seeding these capped portions of the landfill to establish vegetation.
- Ensuring adequate vegetation is maintained on all capped portions of the landfill as part of weekly inspection and corrective actions taken.
- Preventing landfill track out via the use of track out rock pad, replaced/repaired as needed.

- Meeting quarterly with maintenance and management personnel to discuss CCR handling issues and procedures
- Performing weekly and annual CCR unit inspections per 40 CFR Part 257.
- CUS has permanently removed all surface impoundments at this facility as of September 30, 2016. All CCR from the surface impoundments was emplaced and compacted in the active JTEC CCR landfill. Final certification of the verification report was completed and placed in the operating record in April 2017.

CUS has taken the following actions in order to minimize fugitive dust from our CCR handling and transport at the James River Power Station (JRPS).

- JRPS stopped burning coal as of October 2015, therefore CCR is no longer generated at this facility.
- CUS has closed by permanently removing all surface impoundments at this facility as of June 20, 2017. All CCR from the surface impoundments was emplaced and compacted in the active JRPS CCR landfill. Final certification of the verification report was completed and placed in the operating record in August 2017.
- CUS has completed the process of temporarily closing the JRPS CCR landfill. Clay and topsoil have been placed and vegetation has been established.
- Met quarterly with maintenance and management personnel to discuss CCR handling issues and procedures
- Performed weekly and annual CCR unit inspections per 40 CFR Part 257.

Record of Citizen Complaints

We received one citizen complaint on April 23,2019. The complainant stated fly ash was landing on vehicles near Walnut Lawn. At the time of the complaint no coal was being burned on either JTEC Unit 1 or Unit 2. CUS investigated the complaint and it was discovered that a large brush fire was being burned nearby and generating airborne ash that was landing in the area of concern. CUS notified the complainant of the fire and no corrective action was taken by CUS.

Summary of Any Corrective Actions Taken

CUS noted an incident/event involving the JTEC Unit 2 Dustmaster on January 9, 2019. The JTEC Unit 2 Dustmaster fly ash dosing valve malfunctioned, causing unconditioned ash to spill on the ground. A vacuum truck was deployed to pick up the spilled material and placed in landfill. At the time of the incident the ambient temperature was below freezing therefore no water was used when disposing the ash in the landfill. Approximately 2 tons of ash leaked onto the ground. Upon discovery of the malfunction, the Unit 2 Dustmaster system was isolated, the dosing valve was repaired by CUS maintenance personnel and the JTEC Unit 2 Dustmaster system was then returned to service. After this incident CUS brought in the OEM to health check the system. The OEM recommended we completely replace the dosing valve due to wear and also noticed some control logic changes that had been made to the system causing poor performance.

CUS, under the direction of the OEM, corrected the control logic discrepancies. To prevent unauthorized control logic changes in future, CUS also password-protected the control logic so that only approved individuals can make control logic changes. CUS was unable to secure a new dosing valve before the completion of the 2019 spring outage. However, the dosing valve is scheduled to be replaced during the next extended outage.

CUS noted an incident/event involving the JTEC Unit 1 fly ash filter separator on February 19, 2019. CUS personnel were investigating why the Unit 1 fly ash system was not transporting ash to the remote silo from the filter separator. The filter receiver system was isolated and CUS personnel began to open the filter receiver to inspect the inside of the tank. Upon opening the filter separator approximately 5 tons of ash fell onto the ground due to the filter separator being full of ash. A vacuum truck was deployed to pick up the spilled material and placed in the on-site landfill. While placing the ash in the landfill a water truck was used to minimize fugitive dust as it was dumping from the vacuum truck. After further investigation, CUS personnel found that the rotary air lock valve was malfunctioning causing the original ash transport issue. The rotary air lock valve was repaired, and the system was returned to service.

CUS noted an incident/event involving the JTEC Unit 2 fly ash silo filter separator on June 6, 2019. The fly ash silo filter separator mechanical exhauster began to emit small quantities of fly ash indicating a broken bag in the system. Upon discovery of the incident, the JTEC Unit 2 fly ash transport system was isolated, all bags were replaced by CUS maintenance personnel and the Unit 2 fly ash transport system was then returned to service. CUS personnel performed an EPA Method 9 – Opacity Observations both during the actual time the fly ash was being emitted and after the bag change-out had occurred to ensure fly ash was no longer being emitted. CUS personnel also restarted eight (8) weekly and four (4) bi-weekly EPA Method 22 – Visual Emissions Observations schedule as required by the MDNR Title V Operating Permit (OP2015-055A).