

# 2023 Annual Coal Combustion Residuals (CCR) Fugitive Dust Control Report



City of Ames Steam Electric Plant

Ames Municipal Electric System  
502 Carroll Avenue  
Ames, Iowa 50010

**SCS ENGINEERS**

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1690 All-State Court, Suite 100  
West Des Moines, IA 50625  
515-631-6160

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Mr. Curtis Spence  
Assistant Director  
Ames Municipal Electric System  
200 E. 5<sup>th</sup> Street  
Ames, Iowa 50010

Subject: 2023 Annual Coal Combustion Residuals (CCR) Fugitive Dust Control Report

Dear Mr. Spence:

SCS Engineers has prepared the 2023 Annual CCR Fugitive Dust Control Report for the City of Ames Steam Electric Plant in accordance with the requirements set forth in §257.80(c) of the CCR Rule (40 CFR 257.50-107).

If you have any questions regarding this document, please contact the undersigned.

Sincerely,



Isaac A. Creech  
Associate Professional  
SCS Engineers  
(515) 415-9211  
[icreech@scsengineers.com](mailto:icreech@scsengineers.com)



Christine L. Collier, P.E.  
Project Manager  
SCS Engineers  
(515) 631-6161  
[ccollier@scsengineers.com](mailto:ccollier@scsengineers.com)

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# 1 INTRODUCTION

On April 17, 2015, the United States (US) Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residuals (CCR) Rule to regulate the disposal of CCR materials generated from the combustion of coal at electric utilities and independent power producers. The initial federal CCR Rule allowed for inactive CCR surface impoundments that had completely closed by April 17, 2018, to have no other requirements applied to that unit (i.e., the “early closure” provisions). However, on June 14, 2016, the United States Court of Appeals for the D.C. Circuit ordered the vacatur of these “early closure” provisions in Code of Federal Regulations (CFR) 40 Part §257.100. The effect of the vacatur is that all inactive CCR surface impoundments must now comply with all of the requirements applicable to existing CCR surface impoundments. Inactive power plant ash impoundments containing CCR are regulated under 40 CFR Part §257.100.

The City of Ames Municipal Electric System operates a Steam Electric Plant (SEP) located at 200 East 5<sup>th</sup> Street in Ames, Iowa. Associated with the SEP is an inactive CCR surface impoundment (Impoundment). The SEP Impoundment is subject to the CCR Rule and in accordance with the rule must complete an Annual CCR Fugitive Dust Control Report as specified in Section §257.80(c) of the rule. This document addresses the annual report requirement for 2023.

This report describes the actions taken to mitigate fugitive CCR dust from the CCR unit at this facility, provides a record of citizen complaints received since the previous report, and summarizes any corrective actions taken to mitigate CCR fugitive dust.

# 2 BRIEF DESCRIPTION OF IMPOUNDMENT

The Ames Municipal Electric System SEP is located at 200 East 5<sup>th</sup> Street, in Ames, Iowa. From 1982 through prior to October 15, 2015, the SEP placed their CCR materials in a single CCR surface impoundment located approximately 3,000 feet northeast of the generating station in Section 1, Township 83 North, Range 24 West, as shown in Figure 1. After October 15, 2015, the SEP placed the ash generated through the refuse derived fuel (RDF) process into the Impoundment until April 11, 2021. The approximately 9.6-acre Impoundment is located adjacent to and to the east of the City of Ames Water Treatment Plant’s lime pond. The Impoundment (shown in Figure 2) is approximately 900 feet in length in the east-west direction and a maximum of 675 feet in length in the north-south direction. Based on the 2023 aerial image obtained from Google Earth and the

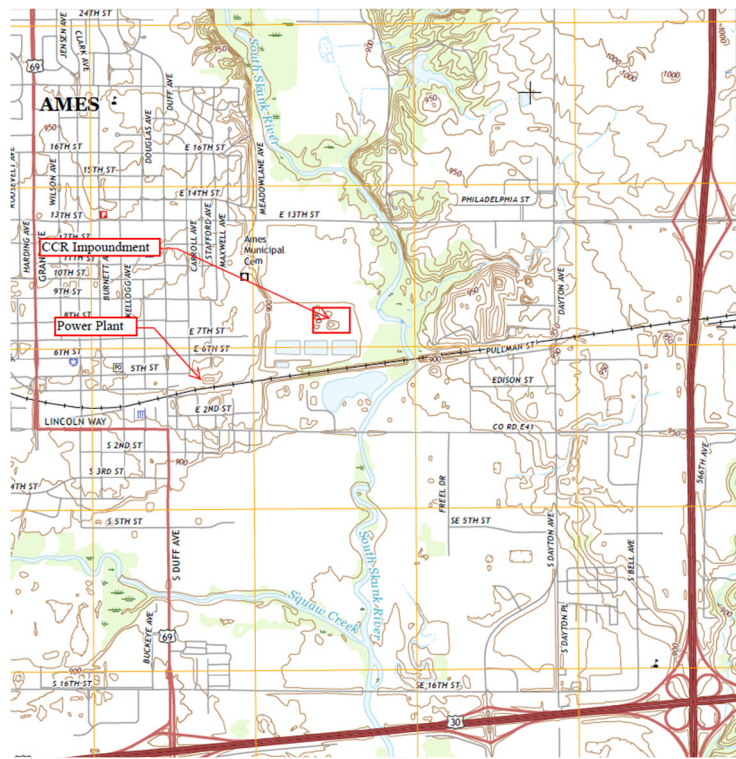


Figure 1: USGS Topo Map - 2012

parcel information found on the City of Ames Beacon™ geographic information system (GIS) site, the area to the north and immediate northeast of the Impoundment is privately-owned crop land. Further to the northeast and beyond the privately owned crop land is the City of Ames South River Valley Park. The South Skunk River is located between 450 and 950 feet east of the Impoundment. South of the Impoundment is City of Ames property and the railroad tracks and right-of-way for the Union Pacific Railroad. The City of Ames Water Treatment Plant's lime pond is located directly west of the Impoundment.



Figure 2 Site Photograph (Google Earth, July 13, 2023)

### **3 DESCRIPTION OF THE ACTIONS TAKEN TO CONTROL CCR FUGITIVE DUST**

In accordance with the CCR Fugitive Dust Control Plan developed for this facility, the following measures are appropriate options to be used when needed to minimize CCR from becoming airborne:

- Establishing and enforcing a vehicle speed limit. Reduced speeds minimize fugitive dust generated from vehicle traffic.
- Utilizing an outside contractor or City of Ames sweepers to apply water to the gravel perimeter road.

- Application of water to material stockpiles.
- Covering all open-bodied vehicles that are transporting CCR to minimize the generation of fugitive dust during transport of CCR.
- Minimizing fall distances when handling or transferring CCR. Best practices suggest handling CCR material with end loaders or excavators to minimize the fall distance when moving CCR material either onto stockpiles within the Impoundment above the water line or into haul vehicles. Other best management practices can be used to minimize the generation of fugitive dust.
- Promptly collecting CCR that is present in vehicle loading/unloading areas to minimize the potential for CCR to become airborne.

Based on discussion with City of Ames Municipal Electric System staff, a contracted vacuum truck service is periodically utilized to clean out accumulated non-CCR fly ash from the boiler and associated duct work. Once the truck is full, the ash material is taken to and dumped in the east clearwater basin now that material is no longer placed in the Impoundment. In order to minimize fugitive dust, the SEP will utilize two methods specific to this process. First, when possible, cleanout will be limited to days with low wind. Time is typically of the essence when these cleanouts occur due to the generating unit being down for maintenance. The cleanout process typically occurs prior to other contractors staged to begin work. Therefore, when cleanout cannot be delayed to wait for low/no wind periods, if fugitive dust is observed, the SEP staff will utilize a water source to spray the pile once it has been removed from the vacuum truck. No events were reported when fugitive dust control was required during this reporting period.

## **4 RECORD OF CITIZEN COMPLAINTS**

Citizen complaints pertaining to fugitive dust are managed in accordance with the plan set forth in the CCR Fugitive Dust Control Plan (Revised April 2019). There were no citizen complaints regarding this facility related to CCR fugitive dust during this reporting period.

## **5 SUMMARY OF CORRECTIVE MEASURES TAKEN**

Corrective actions in response to citizen complaints were not required during this reporting period.

## **6 PERIODIC REVIEW OF CCR FUGITIVE DUST CONTROL PLAN**

The CCR Fugitive Dust Control Plan is reviewed annually, and updated as necessary, in conjunction with preparation of the Annual CCR Fugitive Dust Control Report. During the periodic review, City of Ames Municipal Electric System staff evaluate each measure for controlling fugitive dust to ensure that it is still appropriate for minimizing CCR from becoming airborne at the facility and evaluate other operational changes at the facility to determine whether additional dust control measures should be added. The CCR Fugitive Dust Control Plan was revised in April 2019.

## **7 REVISIONS, RECORDKEEPING, AND REPORTING**

The Annual CCR Fugitive Dust Control Report is required to be prepared on an annual basis. The deadline for completing subsequent reports after the initial report is one year after the date of completing the previous report. For purposes of §257.80(c), the owner or operator has completed the annual CCR fugitive dust control report when it has been placed in the facility's operating record as required by §257.105(g)(2).

Ames Municipal Electric System staff will place this Annual CCR Fugitive Dust Control Report in the CCR Operating Record and on the Ames Municipal Electric System's CCR Rule Compliance Data and Information website. The Ames Municipal Electric System staff will notify the Iowa Department of Natural Resources (DNR) that this report has been completed and placed in the facility's operating record and on the City of Ames CCR Rule Compliance Data and Information website.