

Post-Closure Plan Inactive CCR Surface Impoundment



City of Ames Steam Electric Plant

Ames Municipal Electric System
502 Carroll Avenue
Ames, Iowa 50010

The logo for SCS Engineers consists of the text 'SCS ENGINEERS' in a white, bold, sans-serif font, centered within a dark red rectangular bar. The bar is positioned at the bottom right of the page, partially overlapping a large, light green triangular graphic that points towards the top right corner.

SCS ENGINEERS

April 16, 2018

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April 16, 2018
File No. 27217425.00

Mr. Brian Trower
Assistant Director – Electric Services
Ames Municipal Electric System
502 Carroll Avenue
Ames, Iowa 50010

Subject: Post-Closure Plan
Inactive Coal Combustion Residuals (CCR) Surface Impoundment

Dear Mr. Trower:

SCS Engineers has prepared the Post-Closure Plan for the Inactive CCR Surface Impoundment for the City of Ames Steam Electric Plant in accordance with the requirements set forth in §257.104(d) of the CCR Rule (40 CFR 257.50-107).

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

Sincerely,



Patrick M. Goeke
Senior Geotechnical Engineer
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Table of Contents

Section	Page
PE Certification	ii
1 INTRODUCTION.....	1
2 BRIEF DESCRIPTION OF IMPOUNDMENT.....	2
3 POST-CLOSURE CARE PLAN DETAILS	3
3.1 Monitoring and Maintenance Activities	3
3.2 Final Cover Maintenance	3
3.3 Groundwater Monitoring and System Maintenance.....	3
3.4 Post-Closure Period Contacts.....	4
3.5 Post-Closure Period Site Use.....	4
4 REVISIONS AND AMENDMENTS	5
4.1 Recordkeeping and Reporting.....	5

PE CERTIFICATION

Certification Statement 40 CFR §257.104(d)(4) – Initial Written Post-Closure Plan

This Initial Written Post-Closure Plan for the City of Ames (COA) Steam Electric Plant CCR Inactive Surface Impoundment was prepared by SCS Engineers (SCS). The document and Certification are based on and limited to information that SCS has relied on from the City of Ames and others, but not independently verified, by SCS.

	<p>I, Christine L. Collier, hereby certify that this Post-Closure Plan meets the requirements of 40 CFR §257.104(d) and that it was prepared by me or under my direct supervision, and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p>
	<p>_____ (signature) _____ (date)</p>
	<p>Christine L. Collier _____ (printed or typed name)</p>
	<p>License number <u>17963</u></p>
	<p>My license renewal date is <u>December 31, 2019</u>.</p>
<p>Pages or sheets covered by this seal: <u>Entire Document</u></p>	
<p>_____</p>	

1 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency issued the final version of the federal Coal Combustion Residual (CCR) Rule to regulate the disposal of CCR materials generated from the combustion of coal at electric utilities and independent power producers. Inactive power plant ash impoundments containing CCR are regulated under Section 257.100 of the Code of Federal Regulations (CFR) 40 Part 257.

The City of Ames (COA) Steam Electric Plant is subject to the CCR Rule and in accordance with the rule must prepare a Post-Closure Care Plan as specified in the Section §257.104 of the rule. The Initial Post-Closure Care Plan for the COA Inactive CCR Surface Impoundment must be prepared by April 17, 2018, which this document provides. This plan will be revised if there is a change in the operation of the CCR unit that would substantially affect the written post-closure plan and once post-closure activities have commenced, when unanticipated events necessitate a revision of the written post-closure plan.

Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:

1. Maintaining the integrity and effectiveness of the final cover system.
2. Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of §§ 257.90 through 257.98.
3. The owner or operator of the CCR unit must conduct post-closure care for 30 years.

The Post-Closure Care Plan must include information on the following required actions:

1. A description of the required monitoring and maintenance activities;
2. The frequency at which these activities will be performed;
3. The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and
4. A description of the planned uses of the property during the post-closure period.

Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system.

2 BRIEF DESCRIPTION OF IMPOUNDMENT

The City of Ames Steam Electric Plant is located at 200 East 5th Street, in Ames, Iowa. The City of Ames Steam Electric Plant disposed of 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. The approximately 9.6 acre CCR impoundment is located adjacent to and to the east of the COA Water Treatment Plant's Lime Pond. The CCR surface impoundment 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 2017 aerial image obtained from the COA and the 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, to the northeast beyond the privately owned crop land is the COA South River Valley Park, to the east (ranging from 450 to 950 feet) is the South Skunk River, to the south is COA property and the railroad embankment for the Union Pacific Railroad, and to the west is the lime pond.

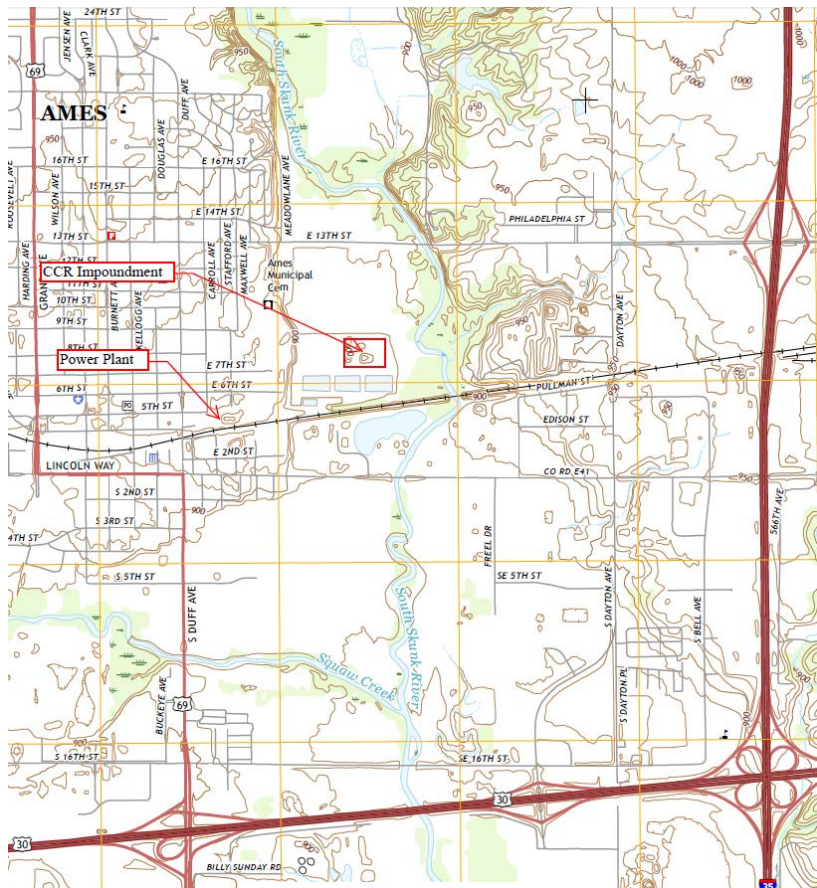


Figure 1 – USGS Topo Map

3 POST-CLOSURE CARE PLAN DETAILS

3.1 MONITORING AND MAINTENANCE ACTIVITIES

40 CFR 257.104(d)(1)(i). “A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed.”

The COA will perform monthly inspections of the final cover surface and groundwater monitoring systems. If issues are noticed during the inspection, action will be taken to remedy the situation. Eroded areas will be repaired and reseeded. Areas of subsidence or settlement, if present, will be addressed to continue to promote run-off. Repairs or replacement will be performed on groundwater monitoring system components as needed.

Monitoring and Maintenance Activities	Frequency
Mowing	Annually
Inspections by Owner/Operator	Monthly
Repair to final cover for erosion, settlement, or subsidence concerns	As needed, determined by inspection
Environmental Monitoring (groundwater)	Semi-Annually

3.2 FINAL COVER MAINTENANCE

Mowing will be performed annually during the growing season unless additional mowing is required in response to the vegetation growth rate, or to control woody vegetation, or to deter habitation by burrowing animals and similar rodents, and to allow inspection and access to the cap and related structures. If eroded areas are noted during monthly inspections, the COA will repair and reseed the area. Areas of subsidence or settlement noted during monthly inspections will be regraded and revegetated.

The vegetative cover will be amended and fertilized as needed to maintain healthy vegetation. Areas without a healthy stand of vegetation will be re-seeded and re-mulched as needed to re-establish vegetation as soon as practical. Depressions in the cover that pond water or otherwise impair the function of the final cover will be repaired, re-graded and re-vegetated.

3.3 GROUNDWATER MONITORING AND SYSTEM MAINTENANCE

Groundwater monitoring wells will be installed and monitored in accordance with the requirements provided in §257.90-98 of the CCR Rule (40 CFR 257.50-107). The groundwater wells will be maintained and sampled semi-annually for the parameters listed in Appendix III to Part 257 and in accordance with 40 CFR 257.90-98.

3.4 POST-CLOSURE PERIOD CONTACTS

40 CFR 257.104(d)(1)(ii). *“The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure period.”*

The contact information for the COA during the post-closure period is as follows:

City of Ames Steam Electric Plant
Ames Municipal Electric System
502 Carroll Avenue
Ames, Iowa 50010
Telephone (515) 239-5170
Fax (515) 239-5308

3.5 POST-CLOSURE PERIOD SITE USE

40 CFR 257.104(d)(1)(iii). *“A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system or the function of the monitoring systems unless necessary to comply with the requirements of the subpart...”*

The COA will have a security fence including barbed wire installed around the perimeter of the inactive CCR surface impoundment in 2018, which will aid in keeping the public off the area. The final use of the COA inactive CCR surface impoundment will be privately owned green space. The COA may decide to put a solar farm or other beneficial energy method on the closed impoundment area. The COA will ensure with any use that there will be no disturbance of the final cover or any other related components that deter from their intent.

4 REVISIONS AND AMENDMENTS

4.1 RECORDKEEPING AND REPORTING

40 CFR 257.104(b)(2)(iii). *“The owner or operator has completed the written post-closure plan when the plan including the certification required by paragraph (d)(4) of this section, has been placed in the facility’s operating record as required by §257.105(i)(4).”*

The Post-Closure Care Plan will be placed in the facility’s operating record and on the COA’s CCR Rule Compliance Data and Information website by April 17, 2018. The COA will amend the Post-Closure Care Plan whenever there is a change in the operation of the CCR unit that would substantially affect the written post-closure plan in effect, or when after post-closure activities have commenced unanticipated events necessitate a revision of the written post-closure plan. The Post-Closure Plan will be amended at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written post-closure plan.

If the written post-closure plan is revised after post-closure activities have commenced for the COA CCR Surface Impoundment, the COA will amend the current post-closure plan no later than 30 days following the triggering event. The COA will obtain a written certification from a qualified professional engineer that the initial and any amendment of the written post-closure plan meets the requirements of Section §257.104 of the CCR Rule.

COA will provide notification of completion of post-closure care requirements no later than 60 days following the completion of the post-closure care period. The notification will include certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the plan. The notification will be placed in the facility’s operating record and on the website.

The most recent copy of the written Post-Closure Care Plan and any amendment of the plan will be in the facility’s operating record. It will also be on the COA’s CCR Rule Compliance Data and Information website within 30 days of being placed in the operating record.