

Post-Closure Plan Walter Scott, Jr. Energy Center CCR Monofill



**MidAmerican Energy Company, Walter Scott, Jr.
Energy Center**

Coal Combustion Residual Rule Compliance

October 10, 2016

Post-Closure Plan Walter Scott, Jr. Energy Center CCR Monofill

Prepared for

**MidAmerican Energy Company, Walter Scott, Jr.
Energy Center
Coal Combustion Residual Rule Compliance
Council Bluffs, Iowa**

October 10, 2016

Prepared by

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INDEX AND CERTIFICATION

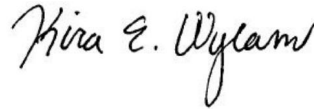
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Certification

I hereby certify, as a Professional Engineer in the State of Iowa, that the information in this document was assembled under my direct supervisory control. This report is not intended or represented to be suitable for reuse by the MidAmerican Energy Company, Walter Scott, Jr. Energy Center or others without specific verification or adaptation by the Engineer.



Kira Wylam, P.E. (IA #23129)

Date: 10/10/2016

Kira Wylam
License Number 23129

My license renewal date is December 31, 2016
Pages or sheets covered by this seal: As noted above.

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
BMcD	Burns & McDonnell Engineering Company, Inc.
CCR	Coal Combustion Residual
CCR Rule	Coal Combustion Residual Rule
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
IDNR	Iowa Department of Natural Resources
MEC	MidAmerican Energy Company
Monofill	Walter Scott, Jr. Energy Center CCR Monofill
RCRA	Resource Conservation and Recovery Act
SAP	Sampling and Analysis Plan
U.S.C.	United States Code
WSEC	Walter Scott, Jr. Energy Center

1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residual Rule (CCR Rule) to regulate the disposal of coal combustion residual (CCR) materials generated at coal-fired units. The rule is administered as part of the Resource Conservation and Recovery Act (RCRA, 42 United States Code [U.S.C.] §6901 et seq.), using the Subtitle D approach.

MidAmerican Energy Company (MEC) is subject to the CCR Rule and as such must develop a Post-Closure Plan per 40 Code of Federal Regulations (CFR) §257.104. This document serves as MEC's Post-Closure Plan for the existing CCR unit (as defined in §257.53), also known as the CCR Monofill, at the Walter Scott, Jr. Energy Center (WSEC). The Post-Closure Plan must contain the following as required in §257.104(d)(1):

- A description of post-closure care maintenance activities (and frequency of these activities) including the following:
 - Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover.
 - Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of §257.90 through §257.98.
 - For new CCR Landfills or any lateral expansion of a CCR Landfill, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of §257.70.
- The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period.
- 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 system unless necessary to comply with §257.104 or if the owner or operator of the CCR unit demonstrates that the disturbance (including any removal of CCR) will not increase the potential threat to human health or the environment.

This sealed document serves as certification that the initial post-closure plan meets the requirements of §257.104(d) of the CCR Rule.

1.1 Existing Design Document Review

A Post-Closure Plan for the Walter Scott, Jr. Energy Center Monofill (Monofill) was designed by MWH as part of the original Iowa Department of Natural Resources (IDNR) permit application. The Post-Closure Plan was initially developed in 2006 and was approved and incorporated into operating permit (Permit #78-SPD-26-06P) by the IDNR in 2007.

2.0 DETAILS OF POST-CLOSURE

WSEC is owned and operated by MEC, and is located in Council Bluffs, Iowa. The Monofill is located to the south of the power plant. The facility is located in Pottawattamie County. The Monofill is permitted by the IDNR under Permit No. 78-SPD-26-06P. The monofill was originally permitted in February of 2007 and is used for the disposal of CCR material from WSEC.

The original Monofill design permit application documents were prepared by MWH as discussed in Section 1.1, and were reviewed by Burns & McDonnell Engineering Company, Inc. (BMcD) to gain an understanding of the Monofill design. A Closure Plan was prepared by BMcD per §257.102(b)(1) of the Federal CCR Rule. The WSEC Monofill shall be closed as described in the Closure Plan and as permitted within Permit No. 78-SPD-26-06P.

2.1 Post-Closure Compliance

Post-closure maintenance shall be as described in §257.104(b) of the CCR Rule. The requirements consist of the following:

- Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover.
- Maintaining the groundwater monitoring system.

Additionally, MEC will maintain the integrity and effectiveness of the leachate collection and removal system as necessary throughout the post-closure care period.

MEC will achieve compliance with the above requirements through final cover inspection and maintenance at the WSEC Monofill, which will be conducted for a period of 30 years after the completion of the closure of the Monofill. Inspection and maintenance activities will be monitored during annual inspections that will occur throughout the post-closure care period. Inspection activities are discussed further in Section 2.1.3.

2.1.1 Groundwater Monitoring

MEC will conduct semi-annual sampling of the Monofill groundwater monitoring network per §257.90 through §257.98 of the CCR Rule, for the entire 30 years of post-closure care. Should any of the sampling activities cause MEC to enter into an Assessment Monitoring Program (§257.95) at the end of the 30-year

post-closure care period, per §257.104(c)(2) of the CCR Rule, MEC must continue monitoring the groundwater until MEC is able to return to the Detection Monitoring Program (§257.94). Sampling for compliance with the CCR Rule will be performed according to a Sampling and Analysis Plan (SAP) for groundwater monitoring at the Monofill.

2.1.2 Site Inspections

Site inspections will be performed annually during the post-closure care period to fulfill the requirements of §257.104 (b)(1) and §257.104 (b)(2) of the CCR Rule. Maintenance of the final cover will include making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover. During the site inspections, MEC will also inspect groundwater monitoring wells to confirm that they are structurally intact and appear to be in good working condition.

In order to verify these requirements are being met, MEC will continue annual site inspections through the entirety of the post-closure care period.

2.2 Post-Closure Contact

MEC will designate and list a contact person during the post-closure care period per §257.104 (d)(ii). The individual listed in Table 2-1 will be MEC's designated contact person for post-closure care at the Monofill:

Table 2-1: Post-Closure Contact Person

Name	Naomi Cavalieri
Affiliation	MidAmerican Energy Company
Address	Naomi Cavalieri c/o MidAmerican Energy Company 7215 Navajo Street Council Bluffs, IA 51501
Phone No.	712-366-5334
Email	NLCavalieri@midamerican.com

2.3 Property Use during Post-Closure Care Period

The Monofill will be maintained as grassland during the post-closure care period. The property is located within a secured facility, and will only be accessed during inspection and groundwater monitoring activities.

2.4 Completion of Post-Closure Care

No later than 60 days following the completion of the post-closure care period, MEC will prepare a notification verifying that post-closure care has been completed and place the notification in the facility's CCR Operating Record. The notification must include the certification by a qualified professional engineer in the State of Iowa, that post-closure care has been completed in accordance with the written Closure Plan in effect and the requirements of §257.104.

3.0 REVISIONS AND AMENDMENTS

This WSEC CCR Monofill Post-Closure Plan will be placed in the CCR Operating Record by October 17, 2016. The plan will be amended whenever there is a change in operation of the CCR unit that affects the current or planned post-closure activities.

The Post-Closure Plan will be amended 60 days prior to a planned change in operation, or within 60 days following an unplanned change in operation. If a written Post-Closure Plan is revised after post-closure activities have commenced, it will be amended no later than 30 days following the triggering event. The Post-Closure Plan and any amendments will be certified by a qualified professional engineer in the State of Iowa for meeting the requirements of §257.104 of the CCR Rule. All amendments and revisions will be placed on the CCR public website within a reasonable amount of time following placement in the facility's CCR Operating Record. A record of revisions made to this document is included in Section 4.0 of this document.

4.0 RECORD OF REVISIONS AND UPDATES

Revision Number	Date	Revisions Made	By Whom
0	10/10/2016	Initial Post-Closure Plan	Burns & McDonnell

5.0 REFERENCES

Burns & McDonnell Engineering Co., on behalf of MidAmerican Energy Company. October 2015. CCR Groundwater Monitoring Program for the South Surface Impoundment and Monofill, Council Bluffs, IA.

Federal Register, 2015. Vol. 80. No. 74. April 17, 2015. 40 CFR Parts 257 and 261. Page 21496.

MWH, on behalf of MidAmerican Energy Company. October 2006. MidAmerican Energy's Local Siting Approval Application for a Coal Combustion Residual Monofill. Council Bluffs, Iowa. Permit ##78-SPD-26-06P.

HDR, on behalf of MidAmerican Energy Company. January 2015. Request for Authorization to Construct Cell 7. Council Bluffs, Iowa. Permit #78-SPD-26-06P.



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