

CCR Post-Closure Plan Fly Ash Impoundment

Sibley Generating Station

Evergy Missouri West, Inc.
3320 E Johnson Road
Sibley, Missouri 64088

SCS ENGINEERS

Project No.: 27222162.00
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8575 West 110th Street, Suite 100
Overland Park, KS 66210
913-681-0030

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REVISION/AMENDMENT HISTORY [§ 257.104]

Amendment Number	Amendment Date	Revised Sections	Summary of Revisions
0	February 05, 2025	--	Original document

1.0 INTRODUCTION AND BACKGROUND

On behalf of Evergy Missouri West, Inc. (Evergy), in accordance with Title 40 Code of Federal Regulations (40 CFR) § 257.104 of the U.S. Environmental Protection Agency Federal Coal Combustion Residuals (CCR) Rule (40 CFR §§ 257 and 261), effective October 19, 2015, and subsequent revisions/amendments, SCS Engineers has prepared this Post-Closure Plan for the former Fly Ash Impoundment (FAI) at the former Sibley Generating Station. This is the initial Post-Closure Plan for the FAI.

Closure of the FAI was initiated with the “*Notification of Intent to Close*” prepared by Evergy on January 28, 2020. Removal of the CCR material from the FAI was certified complete on January 14, 2022. However, in accordance with the 2015 CCR Rule § 257.102(c), the FAI could not be certified closed due groundwater monitoring concentrations exceeding the groundwater protection standards (GWPSs) established pursuant to § 257.95(h) for constituents listed in Appendix IV of the CCR Rule. Furthermore, § 257.102(f)(1)(ii) specifies closure of the CCR unit must be completed within five years of commencing closure activities unless per § 258.102(f)(2)(i) the timeframe for completing closure is extended. Therefore, Evergy provided a demonstration to extend the time necessary to close the FAI by two years on November 6, 2024.

The 2024 revisions/amendments to §§ 257 and 261 (known as the CCR Legacy Rule effective November 8, 2024) included revisions to § 257.102(c) to include two procedural options for closure by removal of CCR units:

- Option 1 is § 257.102(c)(1) – *Complete all removal and decontamination activities during the active life of the CCR Unit.*
- Option 2 is § 257.102(c)(2) – *Complete removal and decontamination activities during the active life and post-closure care period of the CCR Unit.*

Evergy has selected Option 2 and is in the process of completing closure by removal in accordance with § 257.102(c)(2) – ***Complete removal and decontamination activities during the active life and post-closure care period of the CCR unit.***

Under § 257.102(c)(2) the FAI can be closed by completing all removal and decontamination activities, except for groundwater corrective action, during the active life of the CCR unit and by completing groundwater corrective measures during the post-closure care period pursuant to the following procedures:

- i. *Within the timeframes specified in § 257.102(f), document that CCR has been removed from the unit and any areas affected by releases from the CCR unit have been removed or decontaminated; (Complete)*
- ii. *Within the timeframes specified in § 257.102(f), begin implementation of the remedy selected in accordance with § 257.97 such that all components of the remedy are constructed, or otherwise in place, and operating as intended; (In Progress)*
- iii. ***Complete groundwater corrective action as a post-closure care requirement as specified in § 257.104(g); (In Progress)***
- iv. *Amend the written closure plan required by § 257.102(b) and the written post-closure care plan required by § 257.104(g); (This Post-Closure Plan and the Closure Plan – Amendment No. 1 prepared under separate cover)*

- v. *Within the timeframes specified in § 257.102(f), obtain the completion of closure certification or approval as required in § 257.102(f)(3). (In Progress)*
- vi. *Within the timeframes specified § 257.102(f), record the notation on the deed to the property required by § 257.102(i). (In Progress)*

A Post-Closure Plan was not required for the Sibley FAI prior to the 2024 revisions/amendments to §§ 257 and 261, because the Rule specified in § 257.104(a)(2) stated that CCR units that were closed by removal of CCR were not subject to the post-closure criteria in § 257.102(c)(1). All CCR removal and decontamination activities including groundwater corrective measures had to be completed during the active life of the CCR Unit. However, with the revisions/amendments as shown above, the groundwater corrective measures now are allowed to be performed during the post-closure care period. Therefore, this Post-Closure Plan is the initial Post-Closure Plan and was prepared to fulfill the requirements of § 257.104. This Post-Closure Plan follows the requirements outlined in § 257.104(d) – *Written post-closure plan* as identified in Section 2.0 below.

2.0 REGULATORY REQUIREMENTS FOR CCR POST-CLOSURE PLAN

This CCR Post-Closure Plan has been prepared for the Sibley Generating Station FAI in accordance with § 257.104(d). The post-closure requirements are listed below with the section of this Plan responsive to each.

(1) Written Post-Closure Plan [§ 257.104(d)(1)] The owner or operator of a CCR unit must prepare a written post-closure plan that includes, at a minimum, the information specified in § 257.104(d).

- (i) A description of the monitoring and maintenance activities required in § 257.104(b) for the CCR unit, and the frequency at which these activities will be performed; (See Section 3.1)
- (ii) 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 (See Section 3.2)
- (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 in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer or approved by the Participating State Director or approved from EPA where EPA is the permitting authority, and notification shall be provided to the State Director that the demonstration has been placed in the operating record and on the owners or operator's publicly accessible internet site. (See Section 3.3)

(2) Post-Closure Care Maintenance Requirements [§ 257.104(b)]. 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:

- (i) 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; (Not Applicable)
- (ii) If the CCR unit is subject to the design criteria under § 257.70, 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; (Not Applicable) and
- (iii) Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of § 257.90 through 257.98. (See Section 3.1)

This Post-Closure Plan has been prepared in accordance with the requirements of the CCR Rule and includes a written certification in Section 5.0 from a qualified professional engineer in the State of Missouri.

(3) Deadline to Prepare the Initial Written Post-Closure Plan [§ 257.104(d)(2)]

- (i) *Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written post-closure plan consistent with the requirements specified in § 257.104(d)(1). (See Section 1.0 – A written Post-Closure Plan was not required by the CCR Rule for CCR Units closed by removal until after the 2024 CCR Rule revision/amendment allowing groundwater corrective action during the post-closure period.)*
- (ii) *New CCR landfill, new CCR surface impoundments, and any lateral expansions of a CCR unit. No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written post-closure plan consistent with the requirements specified in § 257.104(d)(1). (Not Applicable)*
- (iii) *CCR management units. No later than Wednesday, November 8, 2028, the owner or operator of a CCR management unit must prepare an initial written post-closure care plan as set forth in § 257.104(d)(1). (Not Applicable)*
- (iv) *Recordkeeping. The owner or operator has completed the written post-closure plan when the plan, including the certification required by § 257.104(d)(4), has been placed in the facility's operating record as required by § 257.105(i)(4). (In Progress)*

(3) Amendment of a Written Post-Closure Plan [§ 257.104(d)(3)]

- (i) *The owner or operator may amend the initial or any subsequent written post-closure plan developed pursuant to § 257.104 (d)(1) at any time.*
- (ii) *The owner or operator must amend the written post-closure plan whenever:*
 - (A) *There is a change in the operation of the CCR unit that would substantially affect the written post-closure plan in effect; or*
 - (B) *After post-closure activities have commenced, unanticipated events necessitate a revision of the written post- closure plan.*
- (iii) *The owner or operator must amend the written post-closure plan 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 a written post-closure plan is revised after post-closure activities have commenced for a CCR unit, the owner or operator must amend the written post-closure plan no later than 30 days following the triggering event.*

(4) Certification or Approval. *The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority that the initial and any amendment of the written closure plan meets the requirements of § 257.104(d). (See Section 5.0)*

3.0 CCR POST-CLOSURE CARE

This CCR Post-Closure Plan has been prepared in accordance with the requirements of the CCR Rule and includes a written certification in Section 5.0 from a qualified professional engineer in the State of Missouri. Post-closure care components required under the CCR Rule are discussed below and include groundwater monitoring and operation and maintenance of corrective measures systems put into place at the closure of the unit.

3.1 Monitoring and Maintenance Activities [§ 257.104(d)(1)(i) and § 257.104(b)(3)]

The FAI is currently in assessment monitoring in accordance with § 257.95 and has completed an assessment of corrective measures in accordance with § 257.96. Furthermore, Evergy is currently in the process of selecting a remedy in accordance with § 257.97 to address Appendix IV constituent concentrations in groundwater above the groundwater protection standards (GWPS). Once the remedy is selected, the corrective action program will be implemented in accordance with § 257.98.

Post-closure groundwater monitoring will continue in accordance with the assessment monitoring program throughout the post-closure care period. The established CCR groundwater monitoring network will be utilized, inspected, and maintained during the post-closure care period to maintain groundwater monitoring in accordance with § 257.90 through § 257.98.

During the post-closure care period, Evergy will inspect and maintain the integrity of the monitoring wells, bollards, well surface completions, and sampling equipment to make sure it is secure and in proper working condition for the required sampling intervals. The monitoring wells and sampling equipment will be inspected during each sampling event. Monitoring wells will be re-surveyed if surface completions are modified. Any issues found will be corrected as part of the maintenance activities with the goal of maintaining the integrity of the monitoring and remedy systems. Public access to the FAI will remain restricted by the existing fence and locked gate which will also help prevent damage from vandalism.

3.2 Key Contact Information [§ 257.104(d)(1)(ii)]

Name: Environmental Services Department

Address: Evergy
818 South Kansas Avenue
Topeka, Kansas 66601

Alternate:
PO Box 418679
Kansas City, MO 64141-9679

E-mail Address: EvergyCCR@evergy.com

Phone Number: (888) 471-5275

Alternate:
(800) 383-1183

3.3 Planned Property Use [§ 257.104(d)(1)(iii)]

The currently proposed end use of the FAI footprint is a natural area of passive open space. Removal of the CCR material from the FAI was certified complete on January 14, 2022. The facility entrance/exit gate will remain locked unless needed for monitoring and maintenance for the FAI as discussed in Section 3.1 or for other monitoring and maintenance required for other areas of the facility property. The facility will be closed to the public. The post-closure use of the FAI area will not disturb the functioning of the monitoring and corrective measures systems, unless it is necessary to comply with the CCR Rule. Any other disturbance of the FAI area is allowed if the owner or operator of the FAI area demonstrates that disturbance will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer and a notification will be placed in the operating record and on the Evergy publicly accessible internet site.

3.4 Post-Closure Care Period [§ 257.104(c)]

The post-closure care period for the FAI will be as specified by § 257,104(c)(3)

- (1) Except as provided by § 257.104(c)(2) and (3), the owner or operator of the CCR unit must conduct post-closure care for 30 years. (Not Applicable)*
- (2) If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with § 257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with § 257.95. (Not Applicable)*
- (3) An owner or operator closing a unit pursuant to § 257.102(c)(2) must complete groundwater corrective action in accordance with § 257.98(c).*

Corrective action will be complete when groundwater monitoring concentrations are below the applicable GWPSs for three consecutive years as specified in § 257.98(c)(2) and a notification verifying completion of the post-closure care period has been prepared in accordance with § 257.104(e).

4.0 AMENDMENT OF A WRITTEN POST-CLOSURE PLAN [§ 257.104(d)(3)]

The Post-Closure Plan will be amended if there is a triggering event as listed in § 257.104(d)(3)(ii). The Plan will be amended 60 days prior to a planned change of the Sibley facility or this CCR unit, or no later than 60 days after an unanticipated event that would necessitate a revision and no later than 30 days after an unanticipated event after post-closure care activities have commenced.

Post Closure Plan amendments will be certified by a qualified professional engineer and will be placed in the facility operating record as required per § 257.105(i)(12). Amended Plans will supersede and replace any prior versions. Notification of the availability of an amended Plan will be provided to the State Director per § 257.106(i) and posted to the publicly accessible internet site per § 257.107(i).

CCR Post-Closure Plan changes will be documented using the Revision/Amendment History which prefaces this Plan.

5.0 CERTIFICATION OR APPROVAL [§ 257.104(d)(4)]

The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority that the initial and any amendment of the written closure plan meets the requirements of § 257.104.

I, Daniel Aaron Wiens, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that this CCR Post-Closure Plan for the Fly Ash Impoundment at the Sibley Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR § 257.104(d)(4).



Daniel Aaron Wiens, P.E.
SCS Engineers

6.0 GENERAL COMMENTS

SCS Engineers does not warrant the work of regulatory agencies or other parties supplying information used in the assimilation of this work product. This work product is prepared in accordance with generally accepted environmental engineering and hydrogeological practices, within the constraints of the client's directives. It is intended for the exclusive use of the client for specific application to this project. No guarantees, express or implied, are intended or made.