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GREDELL Engineering Resources, Inc.

Sikeston Board of Municipal Utilities Sikeston Power Station Fly Ash Pond Post-Closure Plan

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Prepared for:



Sikeston
Board of Municipal Utilities

**Sikeston Power Station
1551 West Wakefield Avenue
Sikeston, MO 63801**

April 2018

**Sikeston Board of Municipal Utilities
Sikeston Power Station
Fly Ash Pond
Post-Closure Plan**

April 2018

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PROFESSIONAL ENGINEER'S CERTIFICATION

40 CFR 257.104(d) Written Post-Closure Plan.

I, Thomas R. Gredell, P.E., a professional engineer licensed in the State of Missouri, hereby certify in accordance with 40 CFR 257.104(d)(4) that the initial post-closure plan for the Sikeston Board of Municipal Utilities, Sikeston Power Station, Fly Ash Pond meets the requirements of 40 CFR 257.104(d)(1) as found in federal regulation 40 CFR 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments and has been prepared using good engineering and environmental practices.

Name: _____ Thomas R. Gredell

Signature: _____

Date: _____

Registration Number: PE-021137

State of Registration: Missouri



1.0 INTRODUCTION

Pursuant to 40 CFR 257.100(e), the owner or operator of a Coal Combustion Residual (CCR) unit must prepare a post-closure plan identifying the maintenance, monitoring, planned use, contact person, and care period with respect to the performance criteria set forth in the CCR Rule.

There are two CCR surface impoundments at Sikeston Board of Municipal Utilities' (SBMU) Sikeston Power Station (SPS); an approximate 61-acre Bottom Ash Pond and an approximate 30-acre Fly Ash Pond (Figure 1). The Bottom Ash Pond is an active CCR surface impoundment and was subject to the original closure plan requirements of 40 CFR 257.102(b). The Fly Ash Pond is subject to extension compliance deadlines resulting from the initial inactive status and the Response to Partial Vacatur (the Direct Final Rule), for section 40 CFR 257.100 (effective October 4, 2016) and the Federal CCR Rule section 257.104(d) (effective October 19, 2015). Owners or operators of inactive CCR surface impoundments subject to the provisions of the new 40 CFR 257.100(e)(6)(ii) must, by April 17, 2018, comply with the requirements at 40 CFR 257.104(d).

The Fly Ash Pond currently receives direct precipitation and discharges into the Process Waste Pond, a non-CCR surface Impoundment. The Process Waste Pond discharges through NPDES Outfall #003 into Richland Drainage Ditch #4.

2.0 CCR UNIT INFORMATION

Primary activities common to surface impoundment post-closure care are listed below.

2.1 Post-Closure Care Contact

The SBMU contact for the post-closure care will be:

Name: Mark McGill
Title: Results Engineer/Plant Chemist
Address: 1551 W. Wakefield Ave., Sikeston, MO, 63801
Phone Number: 1-573-475-3131
Email: mark@sbfmu.net

In the event the identified care contact is not available, or there is an emergency, an alternate SBMU contact that is available 24/7 can be reached at:

Name: Don Miller
Title: Plant Manager
Phone Numbers: 1-573-471-5000

2.2 Closed CCR Surface Impoundment Planned Use

The closure of the Fly Ash Pond will include either grass turf, locally available hardy grasses, or a synthetic alternative erosion control layer. SBMU's current intent is to maintain the closed Fly Ash Pond as a passive, open area. If the Fly Ash Pond includes an erosion layer consisting of hardy grasses, the open area could be utilized for hay production. If the Fly Ash Pond includes a synthetic, alternative erosion control layer, the closed surface impoundment will also remain a passive, open area, but will not be subject to agronomic practices. Other potential uses for the Fly Ash Pond can be evaluated that will maintain the final cover and do not increase the potential threat to human health or the environment.

2.3 Post-Closure Care Period

The post-closure care period of the closed surface impoundment will be 30 years. The post-closure care period will begin when the certification from a professional engineer that the entire surface impoundment is properly closed is placed in the facility operating record.

The post-closure care period ends only after post-closure care has been maintained for 30 years and if the groundwater monitoring program is in the detection phase of monitoring, in accordance with Section 257.104(c)(2) and Section 3.3 of this plan.

2.4 Notification of Completion of the Post-Closure Care Period.

No later than 60 days following completion of the post-closure care period, SBMU must prepare a notification that post-closure care has been completed. This notification must include a certification by a professional engineer verifying that post-closure care has been completed in accordance with the post-closure plan. The notice is complete when these documents are placed in the facility operating record, as required by Section 257.105(i)(13).

3.0 POST-CLOSURE PLAN

The Fly Ash Pond will be maintained during the post-closure period as outlined below.

3.1 Final Closure Cap Monitoring and Maintenance

The closed Fly Ash Pond final cover cap will be inspected to ensure the integrity and effectiveness of the system is maintained. Maintenance items include repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events. If repairs are implemented, surrounding areas will also be evaluated to mitigate run-on and run-off from eroding or damaging the final cover.

Settling and subsidence of the final cover system is expected to be minimal. Settlement on the impoundment occurs during consolidation of the CCR material, general fill material, or underlying natural subsoils under new loads from grading activities. Saturated CCR material may settle under the additional loading. This settlement, however, may occur for the duration of grading activities and is expected to be minimized once the final cover system is installed. General fill will be placed in a controlled manner to minimize post-cover system installation settlement.

Routine annual inspections will be conducted by a professional engineer or designee. A report of these inspections will be placed in the SPS facility operating record. Corrections recommended by the engineer will be evaluated following implementation and a follow-up report will be prepared and placed in the facility operating record.

3.2 Stormwater Control System Maintenance

The closed Fly Ash Pond stormwater control system will convey water from the CCR unit cap via sheet flow or to a discharge point. The conveyance system for the cap will be designed by a professional engineer. An evaluation of the constructed stormwater conveyance system will be included in the annual inspection reports. Corrections recommended by the engineer will be evaluated following implementation and a follow-up report will be prepared and placed in the facility operating record.

3.3 Groundwater Monitoring and System Maintenance

The groundwater monitoring system will be maintained in accordance with the requirements of Sections 257.90 through 257.98. The installed groundwater monitoring wells must be certified by a professional engineer. Groundwater sampling and analysis will be conducted in accordance with Sections 257.93 through 257.98. Monitoring wells will be inspected during both sampling events and the annual inspection. Their condition will be recorded in field notes and in the annual report. Corrections or repairs will be implemented, evaluated, and a follow-up report will be prepared and placed in the facility operating record.

If at the end of the post-closure care period, the Fly Ash Pond is under assessment monitoring in accordance with Section 257.95, the facility must continue to conduct post-closure care until the unit returns to detection monitoring.

4.0 AMENDMENTS

Section 257.104(d)(3) addresses amendment of written post-closure plans. SBMU may amend this post-closure plan at any time. However, the post-closure plan must be amended when there is a change in the Fly Ash Pond maintenance that would substantially affect the written plan.

After post-closure care activities have commenced, unanticipated events may necessitate a revision to the written plan.

Amendments must be completed at least 60 days prior to a planned change in the operation of the facility or the Fly Ash Pond, or no later than 60 days after an unanticipated event requires the need to revise the plan. For written plans that are revised after post-closure care has commenced for the Fly Ash Pond, SBMU must amend the plan no later than 30 days after the triggering event.

Each amendment must be certified by a professional engineer that the amended plan meets the requirements of 40 CFR 257.104(d)(1).

5.0 MISCELLANEOUS REQUIREMENTS

Section 257.104(f) states that SBMU must comply with:

- The recordkeeping requirements specified in 257.105(i);
- The notification requirements specified in 257.106(i); and,
- The Internet requirements specified in 257.107(i).

APPENDIX A

Figures



**POST-CLOSURE PLAN
FLY ASH POND
SIKESTON POWER STATION**

GREDELL Engineering Resources, Inc.

ENVIRONMENTAL ENGINEERING LAND - AIR - WATER

1505 East High Street
Jefferson City, Missouri

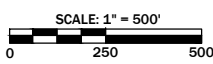
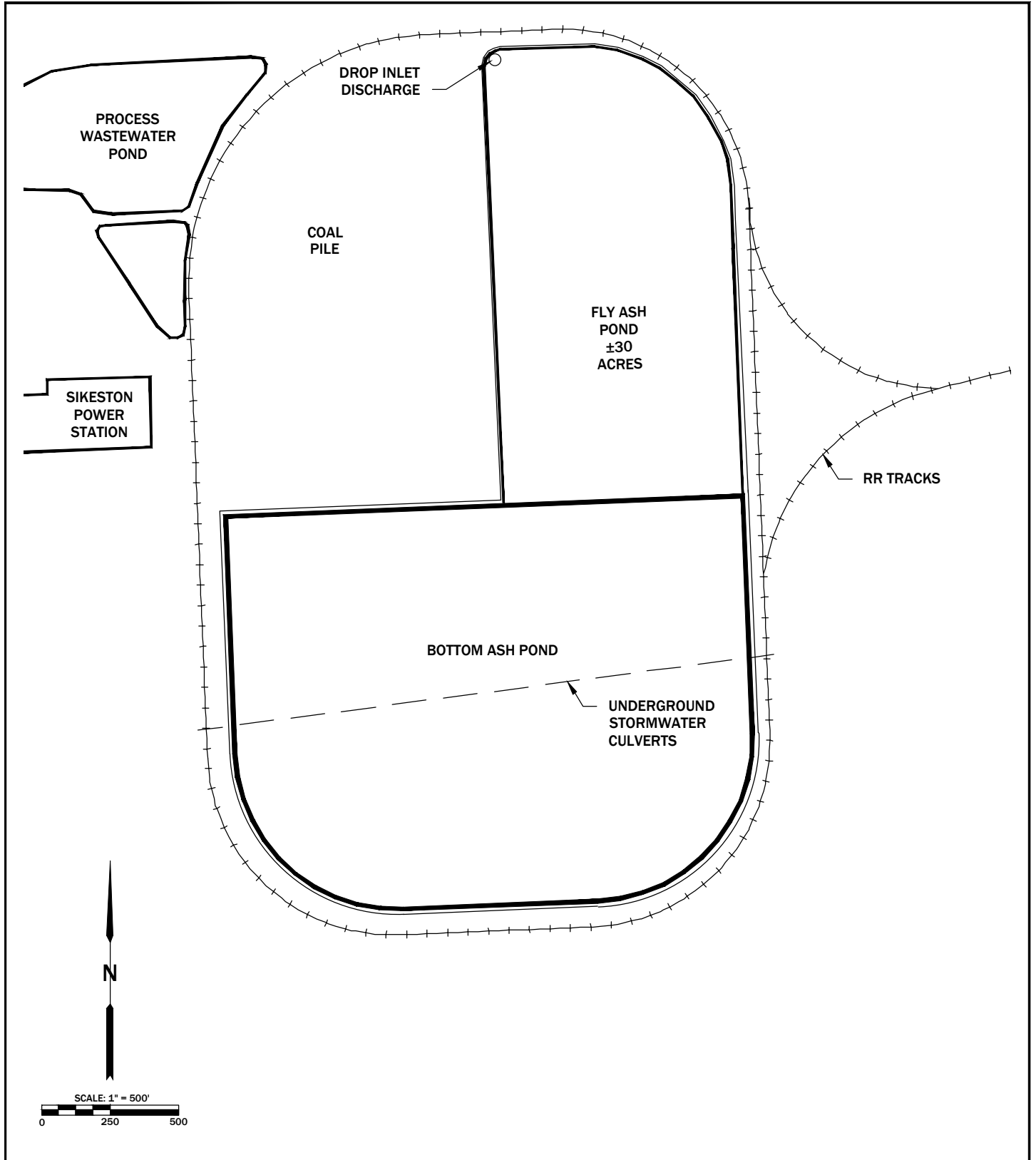
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MO CORP. ENGINEERING LICENSE NO. E-2001001669-D

FIGURE 1 - AERIAL VIEW

DATE	SCALE	PROJECT NAME	REVISION
4/2018	AS NOTED	SIKESTON	
DRAWN CP	APPROVED TG	FILE NAME POST CLOSURE PLAN	SHEET # 1 OF 1

M:\Share\CADDFiles\SIKESTON\FLY ASH POND APRIL EDITS\POST CLOSURE PLAN.dwg, FIGURE 2 - SITE PLAN, 4/6/2018 2:10:04 PM



**POST-CLOSURE PLAN
FLY ASH POND
SIKESTON POWER STATION**

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FIGURE 2 - SITE PLAN

DATE	SCALE	PROJECT NAME	REVISION
4/2018	AS NOTED	SIKESTON	
DRAWN CP	APPROVED TG	FILE NAME POST CLOSURE PLAN	SHEET # 1 OF 1