

**ACM REMEDY SELECTION REPORT - 40 CFR § 257.97**  
**Sikeston Board of Municipal Utility (SBMU) –**  
**Sikeston Power Station (SPS)**  
**Fly Ash Pond (FAP) CCR Basin**  
**May 16, 2025**

In April 2025, SBMU completed an Assessment of Corrective Measures (ACM) Report for a coal ash (CCR) basin, referred to as the Fly Ash Pond (FAP), located at the SPS. The ACM considered a series of alternatives, all of which are protective of human health and the environment, control source material, minimize the potential for further releases and, over time, will attain site-specific groundwater protection standards. SBMU shared the ACM publicly and solicited public input in a public meeting held April 14, 2025. Additionally, SBMU accepted public comments until May 15, 2025. One member of the public attended the meeting and no comments were provided.

SBMU and its consultants performed numerous technical evaluations at SPS, all of which helped in selecting the most appropriate corrective measure. Those evaluations include groundwater modeling; human health and ecological risk assessments; groundwater treatment assessments; onsite and offsite monitoring data; and truck transportation studies. Public input, in addition to these technical assessments, the resulting (and historic) data, and the remaining evaluation criteria set forth in 40 CFR § 257.97 have led to this final remedy selection.

Set forth below is a summary of SBMU-SPS's remedial plan that, when fully implemented, will achieve CCR Rule requirements. SBMU-SPS intends to expeditiously close the CCR basin (FAP) at the SPS by completing necessary steps including dewatering the CCR and installing an engineered cap system that will exceed the federal regulatory requirements. The engineered cap system will minimize (over time) the limited and localized impact to groundwater from the FAP as groundwater and transport modeling demonstrate. In time, the site will meet site-specific groundwater protection standards. As conditions stabilize following dewatering and engineered cap system installation, groundwater evaluations and monitoring will continue. SBMU intends to implement the following corrective measures in conjunction with the closure of the CCR basin (FAP) at SPS.

**CORRECTIVE MEASURES REMEDIAL PLAN:**

**ACM Report Alternative 1:** Closure in Place with Source Control with Low-permeability Cover System & Monitored Natural Attenuation

1. Source control, stabilization and containment of CCR by installation of a low permeability geomembrane engineered cap system (a minimum  $1 \times 10^{-7}$  centimeters per second (cm/sec) versus  $1 \times 10^{-5}$  cm/sec required by the CCR Rule).

2. Once source control is achieved, monitor the natural attenuation (MNA) of groundwater concentrations to address the limited and localized CCR-related impact identified in the ACM. Ongoing monitoring and modeling evaluations, as required, will document that concentrations are decreasing as predicted. MNA occurs due to naturally occurring processes within the aquifer.
3. Annual Groundwater Monitoring and Corrective Action Reports for the SPS will address the following:
  - a. Demonstrate that groundwater plume(s) are stable or decreasing and not expanding; and
  - b. Contain an ongoing summary of baseline and periodic geochemical analysis including groundwater chemistry.

The installation of a low-permeability, engineered cap system satisfies both the CCR Rule's basin closure requirements and can constitute an appropriate remedial corrective measure for groundwater impacts [as confirmed by the Missouri Department of Natural Resources (MDNR)]. A properly engineered and installed engineered cap system will practically eliminate the infiltration of water into the stored CCR. As summarized in the ACM report, groundwater concentrations of constituents of concern will reduce following CCR dewatering and installation of the engineered cap system, which significantly reduces recharge into the CCR and allows groundwater conditions, such as pH levels, to stabilize. SBMU-SPS will establish a long-term performance monitoring plan in accordance with the CCR Rule to document and confirm future reductions. MNA encompasses a variety of physical and chemical processes (biodegradation, sorption, blending, chemical reactions and evaporation), which can immobilize metals in aquifer sediments under the right conditions.

In addition to capping as a remedial corrective measure, both EPA and MDNR recognize MNA as a corrective action component for addressing inorganics (metals) in groundwater [EPA Directive 9283.1-36 (2015); Section 644.143 RSMo (1999)]. As MDNR notes, MNA is not a "no action" alternative and is complementary to source control measures. (See Fact Sheet: MNA of Groundwater at Brownfields/Voluntary Cleanup Program Sites dated March 1, 2016.)

## **IMPLEMENTATION OF REMEDY**

Under its current schedule, SBMU will close the FAP CCR unit (~ 30-acre basin) at the SPS by the end of 2025. Installation of an engineered cap system at the CCR units will significantly reduce infiltration into the basin. Reduction of infiltration into the basin will also result in reduction of water pressure (head) on the bottom of the basin as the in-place CCR dewaterers. Because the FAP is situated above the water table, significant reduction of water entering the basin results in significant reduction of water exiting the basin. Site preparation activities are underway at the SPS to commence dewatering of the basins with capping to follow.

Below are key milestones in the implementation of SBMU's remedial plans. Such schedule is subject to revision based upon SPS's construction schedule, ongoing field investigations and, if needed, regulatory approvals.

FAP removed from Service (May 6, 2021)

FAP Engineered Cap System Completed (Projected December 31, 2025)

Performance Review: Groundwater & Cap System (Annual - Commencing January 2027)

### PROFESSIONAL ENGINEER'S CERTIFICATION

I, Thomas R. Gredell, P.E., a professional engineer licensed in the State of Missouri, hereby certify in accordance with 40 CFR 257.97 that the corrective action described above for the Sikeston Board of Municipal Utilities, Sikeston Power Station, Fly Ash Pond CCR unit. The report demonstrates that the corrective action selected meets the requirements of 40 CFR 257.97 as found in federal regulation 40 CFR 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments. In addition, the selection and design of the corrective action was completed using generally accepted methods.

Name: Thomas R. Gredell, P.E.

Signature: 

Date: 05-20-2025

Registration Number: PE-021137

State of Registration: Missouri

