

ILLINOIS POLLUTION CONTROL BOARD

June 6, 2025

IN THE MATTER OF:)
)
PETITION OF SOUTHERN ILLINOIS) AS 21-6
POWER COOPERATIVE, FOR AN) (Adjusted Standard- Land)
ADJUSTED STANDARD FROM 35 ILL.)
ADM. CODE PART 845, OR IN THE)
ALTERNATIVE, A FINDING OF)
INAPPLICABILITY)

HEARING OFFICER ORDER

The following questions are a preview of what the Board plans to ask at the hearing.

AS 21-6 POTENTIAL HEARING QUESTIONS

Questions for Southern Illinois Power Cooperative (SIPC)

1. Please provide records for the cleanings conducted in Ponds 3/3A in 2006, 2011 and 2014, including the amount of debris and sediments removed at each cleaning and any analytical testing results of the material removed. Am. Pet. at 10.
2. SIPC states that after Pond 4 had been cleaned “down to the clay” in 2010, that Pond 4 only contained two materials: “dry and dark materials” that make up approximately 60-70% of the pond that “consisted primarily of coal fines”, and “muddy materials high in organic matter”. Am Pet. at 13. SIPC further states “the dry and dark materials were taken to the coal yard to further dry and then were burned at the Station for fuel.” *Id.*
 - a. Please clarify whether the dry and dark and muddy materials were removed from Pond 4 when it was cleaned.
 - b. Please clarify what was done with the muddy materials within Pond 4.
 - c. If the muddy materials were placed back into Pond 4 after cleaning, what is the composition of the muddy materials (i.e. coal fines or CCR)?
3. The Agency notes that it requested SIPC to “properly dispose or land apply” all sludges removed from Pond B-3 that were drying as of Sept 16, 2017, under an Agency permit. Rec. at 20.
 - a. Please clarify whether the sludges removed from Pond B-3 were disposed or land applied under an Agency issued permit. If not, provide additional details regarding the disposal/land application of the sludge removed from Pond B-3.

- b. What was the composition of the sludge (i.e. CCR, sediment, etc.)?
 - c. Please comment on whether SIPC determined if the sludge from Pond B-3 met the definition of coal combustion byproduct (CCB) under Section 3.135 of the Act.
4. The Pond Investigation Report notes that the control samples used as a comparison for “known Site CCR materials and coal, including fly ash” were obtained from the Unit 4 boiler, scrubber sludge from 2018, and coal from an onsite coal pile. Pet. Exh. 29 at 4. Also, Unit 4 fly ash was mainly handled dry, mixed with the scrubber sludge, and disposed of into the Former CCR Landfill Area. *Id.*
 - a. As there were multiple historical boiler units at the site, would the CCR composition from Unit 4 differ from other units?
 - b. Please elaborate why Unit 4 fly ash and not fly ash from another Unit (ex. Unit 123) was selected as a control sample given that the ponds included in the petition and discussed in the Pond Investigation Report (South Fly Ash Pond, Pond 3/3A, Pond 4, and Pond S-6) were not receiving CCR from Unit 4 boiler for treatment?
 - c. Would the control samples be representative of coal ash that may have been deposited into the contested ponds?
5. On page 13 of the Pond Investigation (Petition Exhibit 29), it is stated that control sample for Unit 4 was collected during the last few days of Unit 4’s operation and thus the boiler’s “combustion efficiency” may not have been at its best. It is additionally, stated that the sample may not have contained “pure Unit 4 fly ash.” Does SIPC have an estimate of how much higher fly ash content would be under normal boiler operation?
6. For the De Minimus Units (Ponds 4, Former Pond B-3, Pond 3/3A, the South Fly Ash Pond, and Pond 6), SIPC states much of the material within these ponds is not CCR material and is likely coal pile runoff. SIPC Resp. at 9; 12. Is there any documentation available demonstrating the volume of coal pile runoff received by these ponds compared to the volume of CCR material placed within these ponds?
7. SIPC indicates that IEPA may have included the sediment volume from the Prairie State Coal Pile as part of the South Fly Ash Pond. SIPC Resp. to Rec. at 10. How much of the sediment volume for the South Fly Ash Pond as calculated by IEPA do you believe is attributable to the Prairie State Coal Pile?
8. SIPC discusses the “historical presence of long narrow areas of water located on top of a portion of the Former CCR Landfill.” SIPC Resp. to Rec. at 18. SIPC states that these narrow areas were used in the event of emergency conditions during below freezing temperatures.

- a. How often were these narrow areas used?
 - b. Was the water drained between uses?
 - c. Did these areas contain water year-round?
9. In its response to the Agency's Recommendation, SIPC states the Former Landfill Area (Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, Fly Ash Holding Area Extension, and the Former CCR Landfill) was previously regulated by IEPA as a landfill not a CCR surface impoundment. SIPC Resp. at 3-4. SIPC states the Former Fly Ash Holding Units (the Former Landfill Area minus the Former CCR Landfill) have been "dewatered and closed for decades and serve as structural fill for the areas of the Former CCR Landfill that sit on top of them." *Id.* at 4. SIPC additionally states IEPA requested and received a landfill closure plan for the Former Landfill Area. *Id.*
- a. Please clarify if all or part of the Former Landfill Area was regulated under the landfill regulations.
 - b. Identify the landfill regulations under which the Former Landfill Area was regulated, i.e., Part 807, 811, 814 or 815.
 - c. Were the Former Fly Ash Holding Units closed in compliance with the applicable landfill regulations? If not, should those units be now closed as landfills under the Board regulations?
10. The Agency has indicated there are issues with the groundwater monitoring network at Marion Station. Rec. at 47. The Agency also states there are issues specifically around Pond 4 by stating "the actual direction of groundwater flow near Pond 4 cannot be accurately determined." Am. Rec. at 8. Additionally, SIPC has indicated that groundwater well monitoring network may be "enhanced for future monitoring". Pet. Exh. 40 at 18. Regarding the groundwater monitoring requirements under the proposed adjusted standards outlined in Appendix A to the Second Amended Petition:
- a. How long will it take for the possible enhancements to the groundwater well monitoring network to be implemented?
 - b. Under Section III(g) of the proposed adjusted standard, closure or retrofit of Pond 4 is contingent of either finding an exceedance of a groundwater quality protection standard under Section 845.600 or the closure of the Marion Station. Will the current groundwater monitoring well network be sufficient to identify exceedances before the enhancements are implemented?
 - c. If not, should the adjusted standard require the installation of the enhanced groundwater monitoring network as a condition of the requested relief?

- d. Please comment on whether an interim adjusted standard would be appropriate to allow for the collection of reliable groundwater monitoring data using the enhanced groundwater monitoring network to better characterize the environmental impacts of the units at issue.

Questions for Illinois Environmental Protection Agency (IEPA or Agency)

1. Regarding Agency's consideration of potential presence of CCR within the berm of Former Pond B-3, SIPC states that for defining a CCR surface impoundment, the materials placed within the impoundment and managed under a hydraulic head must be evaluated rather than the makeup of a structural berm surrounding the impoundment. SIPC Resp. to Rec. at 10-11. Please clarify the rationale for considering the composition of the berm rather than focusing on the CCR placed within the impoundment as suggested by SIPC.
2. The Agency stated that based on the "berm's length, width, and the reported Pond 3 bottom and surface elevations, measured from aerial photos and depths from Pet. Ex. 29, the Agency estimates that 5,117 cubic yards of materials are contained in the internal berm." Rec. at 11. Please clarify if the Agency considers 5,117 cubic yards of material contained in the berm to be composed predominantly of CCR.
3. SIPC states that for Pond 3 "there is no indication that the permitted volume is a reflection of reality and other historic documentation supports the volume set forth in the bathymetric survey." SIPC Resp. at 11. Therefore, SIPC asserts that the Agency's conclusion that there is 18,327 cubic yard of sediment in Pond 3 based on the difference in volume between the bathymetric survey and the permitted volume is incorrect. *Id.* Does the Agency have any evidence to support that Pond 3 was used to its full permitted volume? If not, please explain the rationale used to determine the volume of sediments to be 18,327 cubic yards.
4. SIPC states that after Pond 4 had been cleaned "down to the clay" in 2010, that Pond 4 only contained two materials: "dry and dark materials" that make up approximately 60-70% of the pond that "consisted primarily of coal fines", and "muddy materials high in organic matter". Am Pet. at 13. Does the Agency have any evidence that either of the materials placed in Pond 4 after it was cleaned in 2010 contain more than de minimus amounts CCR or that CCR was deposited in Pond 4 after it was cleaned?
5. In its response to the Agency, SIPC states "there are many sources of possible sediment in Pond 4 and the mere existence of deltas in no way supports a contention that the pond contains a 'significant amount of CCR'". SIPC Resp. at 9. SIPC further claims the exposed delta areas could be "due to fluctuating water levels in the pond." *Id.* SIPC also hypothesizes that "the likely source of the sediment in the deltas is coal pile runoff". *Id.*
 - a. Does the Agency have a response to SIPC's claims that the presence of deltas within Pond 4 may not be due to CCR accumulation?

- b. If there is a lack of information about the composition of the deltas, should SIPC be required to test the material in the deltas to confirm the presence or absence of CCR?
6. The Pond Investigation Report discusses the “typical unburned carbon content in fly ash”. Pet. Exh. 29 at 8. SIPC states that before 1990 the typical unburned carbon content in fly ash ranged between 2-12%. *Id.* After the 1990 Clean Air Act Amendments the unburned carbon content in fly ash could be as high as 20%. *Id.* Eight fly ash samples from the Unit 4 boiler were collected between 2012 and 2015. *Id.* The unburned carbon content in these fly ash samples ranged between 1.31 and 5.25% with an average of 2.79%. *Id.* The carbon content from coal at the SIPC facility averages to be around 64.1%. *Id.* at Table 2. The carbon content in sediment samples from Pond 3A were found to be 64.08% and 27.05%. *Id.* The carbon content in sediment samples from Pond 4 ranged between 47.62% and 28.92%. *Id.* Based on the carbon content SIPC concluded the carbon found in Ponds 3/3A and Pond 4 is likely attributable to coal from the facility. *Id.* at 8. Please clarify if there are any factors that should be considered by the Board that may indicate that the high carbon content in the sediment samples for Ponds 3/3A and Pond 4 is due to the presence of CCR and not coal.
7. The Recommendation cites the Pond Investigation Table 7 to support the statement that a sediment sample collected from Pond 3A was approximately 87% CCR. Rec. at 14. However, in Table 7, the sediment samples from Pond 3A (S-An and S-3Ax) were presented as 20% and 34% CCR (slag+ fly ash+ bottom ash) respectively. Pet. Exh. 29 at Table 7. Please clarify how the Agency determined a sediment sample from Pond 3A is approximately 87% CCR.
8. In its response to the Agency’s Recommendation, SIPC states the Former Landfill Area (Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, Fly Ash Holding Area Extension, and the Former CCR Landfill) was previously regulated by IEPA as a landfill not a CCR surface impoundment. SIPC Resp. at 3-4. SIPC states the Former Fly Ash Holding Units (the Former Landfill Area minus the Former CCR Landfill) have been “dewatered and closed for decades and serve as structural fill for the areas of the Former CCR Landfill that sit on top of them.” *Id.* at 4. SIPC additionally states IEPA requested and received a landfill closure plan for the Former Landfill Area. *Id.* If any parts of the Former Landfill Area were regulated under landfill regulations, please elaborate why it would be more appropriate now to regulate them as CCR surface impoundments.
 - a. SIPC’s adjusted standard requests that the Former Landfill Area (Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, Fly Ash Holding Area Extension) and Pond 6 to be closed together as one unit. See Section IV of Appendix A to second Am. Pet. SIPC has requested in its proposed adjusted standard to close the Former Landfill Area and Pond 6 via removal with beneficial reuse of the CCR. See Section IV(g) of Appendix A to second Am. Pet. Is there a reason that the Former Landfill Area and Pond 6 should not be closed together as one unit?

- b. Is the Agency averse to these units closing by removal with beneficial reuse of the CCR? If so, why?
9. SIPC asserts that the Agency inappropriately conflates Pond 6 with the Former CCR Landfill. SIPC Resp. to Rec. at 13. SIPC states that “Pond 6 consists only of the runoff [from] pond located next to the landfill that was built to receive stormwater runoff the landfill.” *Id.* Considering SIPC’s response, please elaborate on the Agency’s position on the classification and use of Pond 6.
10. Regarding the “long narrow impoundments” between Pond 6 and the Replacement Fly Holding Area, the Agency states that while dry handling is apparent in the aerial photos, there would be a need for “liquid handling of CCR in cold weather” and “mechanical malfunctions.” Rec. at 36-37. Would the intermittent use of liquids in CCR handling be sufficient to meet the “designed to hold an accumulation of CCR and liquids” portion of the definition of a CCR surface impoundment under Part 845?
11. SIPC states “the De Minimis Units have a CCR thickness that is less than 99% of all the nationwide surface impoundments modeled as part of the 2014 Risk Assessment.” SIPC Resp. 26. SIPC further states that the De Minimis Units “have a sediment depth of less than two feet” and “an amount of CCR that would create a ‘depth’ of less than one foot.” *Id.* SIPC notes that units in the 50th percentile of the 2014 Risk Assessment had a depth of 13.6 feet and units in the 90th percentile had a depth of 36.6 feet. *Id.* The De Minimis Units would be in the 1-2 percentile of the units discussed in the 2014 Risk Assessment. *Id.* at Table 4.4.
 - a. Does the Agency contest SIPC’s claim the amount of CCR present in the sediment of the De Minimis Units would be in the 1-2 percentile of the units evaluated in USEPA’s 2014 Risk Assessment?
 - b. If the Agency does not contest SIPC’s claim, are there other factors of the De Minimis Units that make them ineligible to be considered as such?
12. The Agency has indicated there are issues with the groundwater monitoring network at Marion Station. Rec. at 47. The Agency also states there are issues specifically around Pond 4 by stating “the actual direction of groundwater flow near Pond 4 cannot be accurately determined.” Am. Rec. at 8. Additionally, SIPC has indicated that groundwater well monitoring network may be “enhanced for future monitoring”. Pet. Exh. 40 at 18. Regarding the groundwater monitoring requirements under the proposed adjusted standards outlined in Appendix A of the Second Amended Petition:
 - a. The proposed adjusted standards do not appear to exempt the units from the groundwater or corrective action requirements of Part 845. See Sections I(f), II(e), III(f), and IV(f) of Appendix A to the Second Am. Pet. Could the Agency’s concerns about the sufficiency of the groundwater well monitoring network be addressed during the closure of these unit?

- b. Is it possible for the Agency to estimate the time period that would be required to establish an adequate or enhanced groundwater well monitoring network and collect sufficient data to evaluate the impact of the units covered by the adjusted standard on groundwater?
 - c. Would the Agency be amenable to an interim adjusted standard to allow for the establishment of groundwater monitoring network and collection of sufficient data to better characterize the environmental impacts of the units in the proposed adjusted standards?
13. The Agency states that Pond 4 “is not a good candidate for retrofit because of its proximity to other CCR surface impoundments that are contaminating groundwater.” Am. Rec. at 9. The Agency further states if SIPC “determines that it may need to keep a CCR surface impoundment at Marion Station, the initial written retrofit plan should be submitted within 30 days of a Board order”. *Id.* Please clarify if the Agency intends to explicitly prohibit Pond 4 from being retrofitted and for the retrofit plan to only consider units other than Pond 4.

IT IS SO ORDERED.



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