BEFORE THE
ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	
PETITION OF SOUTHERN ILLINOIS POWER COOPERATIVE FOR AN ADJUSTED STANDARD FROM 35 ILL. ADMIN. CODE PART 845 OR, IN THE ALTERNATIVE, A FINDING OF INAPPLICABILITY	AS 2021-006 (Adjusted Standard)

NOTICE OF FILING

To: Don Brown, Clerk of the Board
Illinois Pollution Control Board
60 E. Van Buren St., Ste 630
Chicago, Illinois 60605

Carol Webb, Hearing Officer
Illinois Pollution Control Board
60 E. Van Buren St., Suite 630
Chicago, Illinois 60605

Stefanie N. Diers, Deputy General Counsel
Gabriel H. Neibergall, Assistant Counsel
Rebecca Strauss, Assistant Counsel
Kaitlyn Hutchison
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board the attached Petitioner's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability and a Certificate of Service, copies of which are herewith served upon you.

Respectfully Submitted,

SOUTHERN ILLINOIS POWER COOPERATION

/s/ *Bina Joshi*

Dated: April 10, 2025

Joshua R. More
Bina Joshi
Sarah L. Lode
Amy Antoniolli
ArentFox Schiff LLP
233 South Wacker Drive, Suite 7100
Chicago, Illinois 60606
(312) 258-5500
Joshua.More@afslaw.com
Bina.Joshi@afslaw.com
Sarah.Lode@afslaw.com
Amy.Antoniolli@afslaw.com

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 10th day of April, 2025:

I have electronically served a true and correct copy of the attached PETITIONER'S RESPONSE TO IEPA'S RECOMMENDATION REGARDING SIPC'S PETITION FOR ADJUSTED STANDARD FROM 35 ILL. ADMIN. CODE PART 845 AND A FINDING OF INAPPLICABILITY by electronically filing with the Clerk of the Illinois Pollution Control Board and by e-mail upon the following persons:

Don Brown, Clerk of the Board
Carol Webb, Hearing Officer
100 West Randolph Street
James R. Thompson Center, Suite 11-500
Chicago, Illinois 60601-3218
Don.Brown@illinois.gov
Carol.Webb@illinois. gov

Stefanie N. Diers, Deputy General Counsel
Gabriel H. Neibergall, Assistant Counsel
Rebecca Strauss, Assistant Counsel
Kaitlyn Hutchison
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Stefanie.Diers@illinois.gov
Gabriel.Neibergall@illinois.gov
Rebecca.Strauss@illinois.gov
Kaitlyn.Hutchison@illinois.gov

My e-mail address is Bina.Joshi@afslaw.com;

The number of pages in the e-mail transmission is 246.

The e-mail transmission took place before 5:00 p.m.

/s/ *Bina Joshi*

Dated: April 10, 2025

Joshua R. More
Bina Joshi
Sarah L. Lode
Amy Antoniolli

ArentFox Schiff LLP
233 South Wacker Drive, Suite 7100
Chicago, Illinois 60606
(312) 258-5500
Joshua.More@afslaw.com
Bina.Joshi@afslaw.com
Sarah.Lode@afslaw.com
Amy.Antoniolli@afslaw.com

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PETITIONER'S RESPONSE TO IEPA'S RECOMMENDATION REGARDING SIPC'S PETITION FOR ADJUSTED STANDARD FROM 35 ILL. ADMIN. CODE PART 845 AND A FINDING OF INAPPLICABILITY

Southern Illinois Power Cooperative ("SIPC") respectfully submits, pursuant to 35 Ill. Admin. Code § 104.416(d) and the Hearing Officer's February 10, 2025, Order, this response (the "Response") to the Illinois Environmental Protection Agency's ("IEPA" or the "Agency") Recommendation (the "Recommendation")[1] regarding SIPC's Second Amended Petition for Adjusted Standard and a Finding of Inapplicability (the "Petition").[2]

I. Introduction

IEPA's Recommendation relies heavily upon inaccurate and speculative information. Here, SIPC responds to that Recommendation and explains why the Illinois Pollution Control Board (the "Board") should grant SIPC's requested relief of a finding of inapplicability, or in the alternative, an adjusted standard.

[1] The term "Recommendation" is used in this Response to refer together to IEPA's January 13, 2023, Recommendation and the Agency's February 3, 2025, Amended Recommendation. Separately, these filings will be referred and cited to as the "2023 Recommendation" and the "2025 Amended Recommendation."
[2] The term "Petition" refers to SIPC's December 20, 2024, Second Amended Petition for Adjusted Standard and a Finding of Inapplicability.

Each unit at SIPC's Marion Generating Station (the "Station") that is subject to this proceeding is unique from the coal combustion residual ("CCR") surface impoundments intended to be regulated under Illinois's 35 Ill Admin. Code Part 845 ("Part 845"). One set of units that are the subject of this proceeding, defined by the Petition as the "De Minimis Units," served mainly as secondary or tertiary collection ponds and/or collection ponds for CCR leachate and are precisely the types of units that are intended to be exempt from regulation under Part 845. The De Minimis Units consist of Pond 4, Former Pond B-3, Pond 3/3a, the South Fly Ash Pond, and Pond 6.[3] The De Minimis Units are different from the CCR surface impoundments the Board found to present a risk justifying regulation and they, therefore, qualify for a finding that the regulations at 35 Ill. Admin. Code Part 845 are inapplicable. That said, if the Board finds that one or more of the De Minimis Units are subject to Part 845, they qualify for the limited adjusted standards SIPC requests in this proceeding. The characteristics and risk profile of the De Minimis Units vary substantially and significantly from the CCR surface impoundments intended for regulation under Part 845. They contain less CCR (and even sediment) than the vast majority of CCR surface impoundments, are among the types of ponds the United States Environmental Protection Agency ("USEPA") indicated are expected to contain only de minimis amounts of CCR, were used for a variety of purposes other than to collect CCR, and are not the types of units found to pose a risk to human health or the environment justifying regulation. SIPC's requested adjusted standards for the De Minimis Units will not pose any adverse impact to human health or the environment. SIPC's

[3] Note, SIPC and IEPA each define Pond 6 differently in the Petition and Recommendation, respectively. When SIPC refers to Pond 6 it is referring to the horseshoe shaped pond located to the north of a former landfill at the Station ("Former CCR Landfill") and primarily serves the purpose of collecting runoff from that landfill as depicted on page 60 of the Petition. On certain maps or diagrams that are in the record of this proceeding, Pond 6 is also identified or referred to as "Pond S-6." IEPA appears to interpret Pond 6 to include at least part of the area SIPC refers to as the Former Landfill Area, defined below, as depicted on page 60 of the Petition.

proposed adjusted standards, nonetheless, do not request any adjustment from Part 845 monitoring and corrective action requirements and propose closure of each of the De Minimis Units in accordance with Part 845 performance standards. The requested adjusted standards ask for adjustments from certain permit application submission timeframes (necessary due to the adjusted standard proceeding), the timeframe for closure of Pond 4 (only in the event the Part 845 groundwater monitoring does not demonstrate this pond is causing or contributing to exceedances of Part 845 groundwater protection standards), and certain location, design, operational, and construction permit application requirements for Former Pond B-3 (which do not apply due to characteristics of the unit, including the fact that it is dewatered and devoid of any sediment). Thus, the proposed adjusted standards are protective of human health or the environment.

The other set of units at issue in this proceeding, referred to in the Petition together as the Former Landfill Area, consist of (1) former fly ash holding units that were dewatered and closed in the late 1970s and early 1980s (the "Former Fly Ash Holding Units," which is made up of the Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, and Fly Ash Holding Area Extension) and (2) the Former CCR Landfill that sits adjacent to and on top of the Former Fly Ash Holding Units. These units are not CCR surface impoundments. Instead, they are areas of CCR fill and/or a CCR landfill that would be categorized as CCR management units ("CCRMUs") under current federal regulations or unconsolidated ash fills or piles, including temporary accumulations of ash as discussed by the Board in the Part 845 rulemaking and related subdocket (R20-19A), which are unit categories that by definition exclude them from being CCR surface impoundments. *See* R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845,* Second Notice Opinion and Order at 12 (Feb. 4, 2021) ("Second Notice Op. and Order") (finding regulation of unconsolidated coal

ash fills and piles beyond the scope of the Part 845 rulemaking). In fact, for decades IEPA classified the Former CCR Landfill (and, it appears, some or all the area of the Former Fly Ash Holding Units) as a landfill not a surface impoundment. The Former Fly Ash Holding Units 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. The Former CCR Landfill and the Former Fly Ash Holding Units, therefore, qualify for a finding of inapplicability.

That said, if the Board considers some or all these units to be regulated under Part 845, they qualify for the requested adjusted standard. The Former CCR Landfill and Former Fly Ash Holding Units, that together make up the Former Landfill Area, are unique when compared to other "CCR surface impoundments." This includes the fact that the Former Landfill Area was consistently categorized and treated as a landfill under Illinois landfill regulations (to the point where a landfill closure plan was submitted to the IEPA at its request), the placement of dry (i.e. non-sluiced) CCR upon the Former CCR Landfill, and the unique co-location of the Former CCR Landfill on top of the Former Fly Ash Holding Units. Similar to the De Minimis Units, the adjusted standard requested for the Former Landfill Area will not result in adverse effects to human health or the environment. The adjusted standard SIPC requests for the Former Landfill Area does not include any adjustments from the groundwater monitoring or corrective action requirements in Part 845. It similarly proposes closure of the entire Former Landfill Area in accordance with Part 845 standards. The only adjustments SIPC seeks with respect to Former Landfill Area are (1) an extension of permit application deadlines (necessary due to the adjusted standard proceeding) (2) to allow this area to close via removal of CCR for beneficial use and with an extended time period to complete closure, if SIPC, with IEPA oversight, provides evidence such closure is viable, and

(3) if closure via removal for beneficial use is not viable, to allow for closure of this unique area in accordance with Part 845 closure in place requirements.

Given the number of units at issue in this proceeding, Petitioner is providing a current GoogleEarth image,[4] below, showing the approximate locations and current features of the units at issue in this proceeding. A Site Map is also available at SIPC Ex. 3.

[4] https://earth.google.com/web/search/Southern+Illinois+Power,+Lake+Egypt+Road,+Marion,+IL/@37.620619,-88.95661306,157.98319056a,4682.81812084d,35y,-0h,0t,0r/data=CiwiJgokCVZz9cCAYUBAEVVz9cCAYUDAGcqKglILIkxAIZqtW4PKvEzAQgIIATIpCicKJQohMXdIc21kMXZvZkJTS2hLYi0zMHBBakJqZ29LMGRZQnZ5IAE6AwoBMEICCABKBwjXvpksEAE

II. IEPA's Arguments Regarding the Finding of Inapplicability Are Based on Inaccurate Assumptions, Speculative Observations, Incorrect Facts, and Misconstrued Legal Interpretations.

A. The De Minimis Units

A CCR surface impoundment is defined as "a natural topographic depression, man-made excavation, or diked area, which **is** designed to hold an accumulation of CCR and liquids, and the unit treat***s***, store***s***, or dispose***s*** of CCR." 35 Ill. Admin. Code § 845.120. The De Minimis Units are not "designed to hold an accumulation of CCR and liquids." Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities, Revised SIPC Ex. 17 at 21,357.[5] Further, the De Minimis Units do not "treat, store, or dispose[] of CCR*."* *Id.*

The Board has acknowledged the existence of a de minimis unit exception and explained that regulatory relief, such as an adjusted standard or variance, is "available to owners and operators when they disagree with an IEPA determination concerning whether a unit is a CCR surface impoundment." Second Notice Op. and Order at 14, 17 (further noting the availability of adjusted standards to address site-specific issues). Despite the Board's acknowledgement that a unit can be exempt because it contains de minimis amounts of CCR, IEPA nonetheless interprets the definition of CCR surface impoundment such that the de minimis exception could not, on any practical terms, ever apply. Essentially, IEPA contends that all depressed, excavated or diked areas that hold water and *any amount* of CCR are units "designed to hold an accumulation of CCR and

[5] To streamline reference to exhibits, SIPC will refer to an Exhibit previously submitted in this proceeding by SIPC or those concurrently submitted with this Response simply as "SIPC Ex. XX." If the exhibit has been amended or revised since it was first submitted, whether with the Amended Petition, Second Amended Petition, or Response SIPC will refer to such exhibits as "Revised SIPC Ex. XX." Generally, Exhibits 1 through 28 were submitted with the Initial Petition, Exhibits 29 through 31 were submitted with the Amended Petition, Exhibits 32 through 39 were submitted with the Second Amended Petition, a revised Exhibit 33 is being submitted concurrently with this Response, and Exhibits starting with Exhibit 40 are submitted concurrently with this Response. Following the first citation of any Exhibit, SIPC will cite only to the Exhibit number.

liquids" that "treats, stores, or disposes of CCR" warranting regulation under Part 845. 2023 Recommendation at 6–7. This interpretation ignores the Board's order recognizing the context and purpose of the de minimis exception and is inconsistent with IEPA's comments during the Part 845 rulemaking. Second Notice Op. and Order at 14–15 (IEPA acknowledging de minimis units may exist and suggesting that if a definition were promulgated to tie the definition to a RCRA "reasonable probability of adverse effect" standard). It is also inconsistent with USEPA's explanation that surface impoundments that do not contain "substantial" or "significant" amounts of CCR qualify for the de minimis exception. Revised SIPC Ex. 17 at 21,357.

Furthermore, because IEPA and the Board relied upon USEPA's risk assessment when proposing and promulgating Part 845 and that risk assessment only supported the regulation of "units that contain a large amount of CCR managed with water, under a hydraulic head that promotes the rapid leaching of contaminants," Revised SIPC Ex. 17 at 21,357, the regulation of CCR surface impoundments cannot be understood to encompass units that contain de minimis amounts of CCR. Revised SIPC Ex. 17 at 21,357 (explaining USEPA's intention to cover units that contain "substantial amounts" of CCR); R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, First Supplement to IEPA Pre-Filed Responses (Aug. 5, 2020), SIPC Ex. 24 at 37–38 (noting reliance upon USEPA's 2014 Risk Assessment for Part 845 rulemaking).[6]

Additionally, IEPA—while acknowledging certain examples of de minimis units provided by USEPA, 2023 Recommendation at 7,—conveniently overlooks or ignores USEPA guidance indicating the universe of de minimis units is far more expansive than those limited examples and

[6] Both USEPA and the Board refused to promulgate a definition of de minimis units, while acknowledging the existence of such units. R2020-019, Second Notice Op. and Order. Thus, the Board is being asked, as part of this proceeding, to determine the contours for determining when a unit meets the definition of a de minimis unit.

includes units with precisely the characteristics of the De Minimis Units. As USEPA explained in response to questions regarding implementation of the federal CCR rule, or 40 C.F.R. Part 257, Subpart D, "[US]EPA provided examples in the preamble to the final rule of units that, in EPA's experience, typically would be expected to fall outside of that definition. These examples were not intended to be exclusive or definitive." USEPA, *Frequent Questions about Definitions and Implementing the Final Rule Regulating the Disposal of Coal Combustion Residuals*, [7] SIPC Ex. 34 at 9 (emphasis added). There, USEPA further noted that

> [s]urface runoff, coal pile runoff, CCR landfill leachate, stormwater and evaporation ponds would not generally be expected to meet the definition of a CCR surface impoundment, because based on their typical design and function, such units are not usually designed primarily to hold an accumulation of CCR and liquid and would not be expected to treat, store, or dispose of CCR.

Id. Similarly, USEPA recently reiterated that "evaporation ponds, or secondary or tertiary finishing ponds that have not been properly cleaned up" are expected to "contain no more than a de minimis amount of CCR" and as such are not intended to be subject to regulation. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments, 89 Fed. Reg. 38,950, 39,050 (May 8, 2024), Revised SIPC Ex. 33.

Further, the factual basis IEPA provides to contend the De Minimis Units "hold an accumulation of CCR" and "treat, store or dispose, of CCR" in amounts warranting regulation is built on inaccurate evidence and speculative and unsupported observations. In its 2025 Amended Recommendation, IEPA predominantly relies upon its 2023 Recommendation for continued support of its contentions that the De Minimis Units are not, in fact, de minimis. 2025 Amended

[7] Available at https://www.epa.gov/coalash/frequent-questions-about-definitions-and-implementing-final-rule-regulating-disposal-coal#q7.

Recommendation at 4–5. SIPC responds to the Agency's flawed factual assertions for each De Minimis Unit below.

Pond 4

- IEPA assumes, without evidence, that Pond 4 contains a "significant amount of CCR." 2023 Recommendation ¶ 56. The Agency bases this unsupported assertion on the alleged formation of deltas, as seen through aerial photographs, and an unsupported assumption that the deltas represent CCR. *Id.* However, as IEPA's own exhibit demonstrates, water (and sediment) flowed into Pond 4 from the coal yard, yard drainage, and boiler blow down. IEPA Ex. QQ.[8] The unit also historically received decanted overflow water from Ponds 1 and 2, which may have included some CCR. *Id.* Thus, 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." Haley and Aldrich, *Evaluation Report: Southern Illinois Power Company Marion Station* (April 2025)("H&A Rebuttal Report"), SIPC Ex. 40 at 3-4.
- IEPA assumes an exposed delta indicates sedimentation, but the exposed area could also be due to fluctuating water levels in the pond. SIPC Ex. 40 at 5.
- Notably, the "deltas" IEPA points to are located on the south side of Pond 4. This suggests the likely source of the sediment in the deltas is coal pile runoff, which enters Pond 4 from the south. *See* IEPA Ex. 3, 4; *see also* The Declaration of Jason McLaurin, SIPC Ex. 32 (explaining that when sediment from Pond 4 was removed (down to the clay) in 2010, the excavated materials were burned for fuel, which could not have occurred if there was more than a de minimis amount of CCR within the sediment); SIPC Ex. 40 at 4-5.
- The Agency points to a delta in IEPA Ex. 18 to assert there is a visible presence of CCR. 2023 Recommendation ¶ 65. However, the sediment in IEPA's Ex. 18 is not dark as would be expected if it was all or even mostly CCR. SIPC Ex. 40 at 5.
- The Agency assumes that because historic IEPA National Pollutant Discharge Elimination System ("NPDES") permits refer to Pond 4 as an "ash pond" that it necessarily is a "CCR surface impoundment" under Part 845. 2023 Recommendation ¶ 57. However, no assumptions can be made about the amount of CCR entering Pond 4 from these documents and doing so would be purely speculative. Water and sediment entered Pond 4 from a variety of sources. SIPC Ex. 40 at 3-4.
- IEPA falsely assumes all the sediment in Pond 4 is CCR. 2023 Recommendation ¶ 59. The Agency also makes flawed calculations regarding CCR volume in Pond 4. Rather, as noted above, Pond 4 includes sediment from a variety of different sources. Analysis conducted of the sediment in Pond 4 indicates that CCR makes up only a fraction of the sediment located in the unit. Pond Investigation Report for Certain Ponds at SIPC's Marion Station, SIPC Ex. 29; SIPC Ex. 40 at 4–5. IEPA's calculations regarding the

[8] SIPC references any exhibits submitted with IEPA's 2023 Recommendation or 2025 Amended Recommendation as "IEPA Ex. XX."

amount of CCR in Pond 4 (and even the amount of sediment in Pond 4) include various flaws and false assumptions as explained in SIPC Ex. 40. *See* SIPC Ex. 40 at 5.

- The Agency incorrectly asserts the berm of Pond 4 is "predominantly" CCR. 2023 Recommendation ¶ 63. Again, the Agency provides no support for this assumption and appears to either ignore or misconstrue the evidence. The Pond 4 berm was, in fact, sampled and found to consist of only approximately seven to fifteen percent fly ash. SIPC Ex. 29 at 15. Significantly, the composition of a berm, a structural element of a pond, is not representative of the composition of sediment entering the ponded area and should not be considered in evaluating the amount of sediment or CCR in the pond. The CCR present in Pond 4, placed under a hydraulic head, is the relevant material for purposes of determining whether the unit is a CCR surface impoundment.

Former Pond B-3

- IEPA unconvincingly points to aerials from March 1993 and April 1998 as evidence of CCR deltas in Former Pond B-3. 2023 Recommendation ¶ 75. The Agency incorrectly assumes any deltas formed or seen in aerial photographs are accumulations of sediment (CCR more specifically) rather than fluctuations of stormwater. SIPC Ex. 40 at 7. In fact, deltas can be formed as a result of fluctuating stormwater based on weather conditions. Id. The dry areas seen to the south portion of Former Pond B-3 in IEPA Ex. 3 and 4 could easily be attributed to low water levels. *Id.* Due to elevations at the site, it is likely that water would accumulate to the north side of Pond B-3 and that water levels would be lower towards the south side of Pond B-3. *Id.*

- IEPA incorrectly assumes that CCR entered Former Pond B-3 (and A-1) even after the closure of associated electric generating units that would have been the source of any CCR entering the unit. 2023 Recommendation ¶ 74. In fact, Former Pond B-3 no longer held CCR after 2003 (and therefore did not still contain CCR after October 19, 2015). As explained in the Petition, Former Pond B-3 could have received CCR in only two ways: (1) decanted overflow water from Pond A-1 (which served as the primary ash pond receiving CCR from Units 1, 2, and 3) and (2) during outages of Pond A-1 (which occurred only three to four times and lasted for approximately two weeks each) when Former Pond B-3 received fly ash from Units 1, 2, and 3 while those units were operating at less than full capacity. Petition at 14. Units 1, 2, and 3 were shut down in 2003, debris and sediment were removed from Former Pond B-3 in 2003, and after that time Former Pond B-3 did not have a nexus to any source of CCR. *Id.* Thus, Former Pond B-3 did not receive any CCR after 2003 and could not have contained any CCR after October 19, 2015. SIPC Ex. 40 at 7 (explaining how sediments in stormwater would be expected to be the primary contributor to any sediment accumulation in Pond B-3 after 2003).[9]

- IEPA incorrectly focuses on the potential presence of CCR within the berm of Former Pond B-3. 2023 Recommendation ¶ 79. Again, the relevant question for defining a CCR surface impoundment is an evaluation of materials placed within the natural topographic

[9] As explained in SIPC's Petition, the sediment removed from Former Pond B-3 in 2017 had a high BTU content and at least a portion of it was burned for fuel, further supporting the fact that it did not receive any CCR after 2003. Petition at 14.

depression, man-made excavation, or diked area, and managed under a hydraulic head, not the make up of a structural berm surrounding such area. 35 Ill. Admin. Code § 845.120.

- IEPA wrongly concludes that there is evidence of bottom ash in the berm of Former Pond B-3. 2023 Recommendation ¶ 79. The Agency bases this conclusion on sulfate results for a sample that it incorrectly asserts is from the berm of Former Pond B-3. *Id.* In fact, the sample the Agency is relying upon is from Pond 3/3a *not* Former Pond B-3. *Id.* (citing to SIPC Ex. 29 at 12); SIPC Ex. 40 at 7. Evidence from the boring logs taken from samples actually collected at the berm of Former Pond B-3 demonstrate that there was no bottom ash found in those samples.[10] SIPC Ex. 29 at Attachment C (see boring logs for samples B-B3a and B-B3b, the samples taken from Former Pond B-3). Shake test samples from the Former Pond B-3 berm again indicate the presence of little to no CCR. SIPC Ex. 40 at 7.

Pond 3/3a

- IEPA relies upon historic aerials to incorrectly assert that there was a historic accumulation of CCR along the west side of Pond 3 and to show continued placement of CCR after October 2015. 2023 Recommendation ¶¶28–29. The Agency also incorrectly assumes that all, or almost all, of the sediment in Pond 3/3a is CCR. *Id.* ¶¶ 35, 49–50. In fact, aerials showing the presence of sediment are not evidence of CCR. CCR makes up only 20-34% of the sediment located in Pond 3/3a. SIPC Ex. 29 at 14. Evidence demonstrates a variety of sources for the possible sediment in Pond 3/3a other than CCR. SIPC Ex. 40 at 9-10. Additionally, the Agency seems to be incorrectly assuming that the "Other" category identified in the PLM analysis, presented in SIPC Ex. 29, is indicative of CCR. Rather, the "Other" category covers constituent classifications such as Quartz, Carbonates, Vermiculite, Perlite, isotropic/glass, organics, and opaque particles. SIPC Ex. 40 at 10.

- Contrary to IEPA's claim that Pond 3a is a settling pond, 1997 underground utilities drawing for Pond 3a demonstrates it was a clarified water pond that is much like a secondary or tertiary finishing pond and would not be expected to contain more than a de minimis amount of CCR. SIPC Ex. 40 at 9.

- IEPA questions the area of investigation for the Pond 3 bathymetric survey, 2023 Recommendation ¶ 41, but SIPC and IEPA discussed, negotiated, and agreed upon the scope of the Pond 3 bathymetric survey, and the survey was conducted in accordance with that agreement. SIPC Ex. 29.

- IEPA incorrectly assumes the presence of 18,327 cubic yards of sediment in Pond 3 based on the difference between the volume estimated in the bathymetric survey versus the pond's permitted volume. Significantly, 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 Ex. 40 at 10.

[10] IEPA disingenuously suggests SIPC "declined" to collect sample B-3c from Pond B-3. As clearly noted in the materials submitted to IEPA, SIPC's consultant, Hanson Professional Services, could not collect a sample from B-3c because that area was inaccessible. SIPC Ex. 29. In fact, any instances where samples were not collected by Hanson are due to inaccessibility or because the proposed boring location was in bedrock. *Id.* at 6.

- IEPA includes the berm in its calculation of volume for Pond 3. *See, e.g.* 2023 Recommendation ¶¶ 37, 50. This is improper as this area is not within the man-made depression, excavation, or diked area and not under a hydraulic head, which is the relevant area of examination for determining what constitutes a CCR surface impoundment. 35 Ill. Admin. Code § 845.120.

- IEPA incorrectly assumes the percentage of CCR in berms is indicative of the percentage of CCR in a pond. *See* 2023 Recommendation at 49. This is not an appropriate assumption. Berms are built separately while sediment in Pond 3/3a would consist only of what came over to it from, for example, water from South Fly Ash Pond, overflow from Initial Fly Ash Holding Area and Fly Ash Holding Extension, coal pile runoff, and water from plant floor drains. SIPC Ex. 40 at 9.

South Fly Ash Pond

- The Agency inaccurately relies upon aerials as evidence of the presence of CCR at the South Fly Ash Pond. 2023 Recommendation ¶ 87. The Agency speculates that the aerials demonstrate the formation of deltas; however, there is no evidence that the sediment seen in the aerials is due to the receipt of sediment rather than a change in water level. SIPC Ex. 40 at 11–12. The Agency also incorrectly assumes the delta observed in aerials from 2017 to 2021 is indicative of CCR entering the South Fly Ash Pond after 2015. However, aerial photography of the South Fly Ash Pond in 2009 appears to show a delta that is larger than the delta shown in the Agency's aerial from 2020, indicating there was not an observable effect to delta size based on discharge into the pond after October 19, 2015. *Id.*

- Further, IEPA presumes the sediment present within the South Fly Ash Pond and seen in the aerials is CCR; however, there is no evidence that all of the sediment seen is CCR. This unit has never directly received fly ash. The unit serves as a coal catch basin and received decanted effluent from Emery Pond and PLM analysis confirms only a fraction of sediment in the unit is CCR. Ex. 29 at 14; Ex. 20 at 12.

- IEPA's calculation of the volume of CCR in the South Fly Ash Pond is also incorrect. 2023 Recommendation ¶¶ 91-92. First, IEPA, again, incorrectly assumes all the sediment is CCR. SIPC Ex. 40 at 12; *see also* SIPC Ex. 29 at 14 (the sediment samples, in fact, contain between 10% and 64% CCR based on PLM analysis). Second, IEPA appears to incorrectly include sediment from the Prairie State Coal Pile, made up of coal and located adjacent to this unit, in their calculation of sediment volume for the South Fly Ash Pond. SIPC Ex. 40 at 12. In or around 2007, this area—located at the north end of the South Fly Ash Pond—was dewatered and used to store overburden coal from Prairie State. The Second Declaration of Jason McLaurin, SIPC Ex. 41. Finally, IEPA's calculation does not properly account for changes in pond water level and geomorphology around the area of the berm over time. SIPC Ex. 40 at 12.

- IEPA uses an aerial to contend berm material from the South Fly Ash Pond is CCR. 2023 Recommendation ¶¶ 91–92. This contention is unsupported and, to the contrary, boring logs demonstrate the berm material does not contain CCR. The color of the material in the Agency's referenced aerial (IEPA Ex. 18) is similar to the material in the coal yard. SIPC Ex. 40 at 12. The Agency appears to question why a berm built for this unit in 2009 and

the southern berm of the unit were not sampled for CCR content as part of the pond evaluation conducted of the De Minimis Units. 2023 Recommendation ¶ 91. That is because, consistent with accepted scientific practices, such sampling was not needed. Visual examination of borings taken from these areas did not show any material (such as dark black material or bottom/bed ash) indicating the possible presence CCR. SIPC Ex. 29 at Attachment C; *see also* SIPC Ex. 40 at 12. Additionally, any consideration of the berm to determine whether a unit is a CCR surface impoundment is improper. This area is not within the man-made depression, excavation, or diked area and not under a hydraulic head, which is the relevant area of examination for determining what constitutes a CCR surface impoundment. 35 Ill. Admin. Code § 845.120.

Pond 6

- IEPA appears to inappropriately conflate Pond 6 with the Former CCR Landfill. It states that "the majority of the permitted footprint of Pond 6 is filled with CCR above the level of water in the impoundment." 2023 Recommendation ¶ 108. However, Pond 6 consists only of the runoff pond located next to the landfill that was built to receive stormwater runoff from the landfill. As explained in IEPA's September 27, 2019, inspection report of the Former CCR Landfill: "A stormwater ditch (photo 7), referred to as the 'moat' by facility personnel, is present along the east, north and west sides of the landfill. Facility representatives said the top of the landfill has been sloped to promote surficial flow toward the eastern portion of the moat." IEPA Violation Notice L-2020-00035 (Mar. 20, 2020), SIPC Ex. 16 at 9. Thus, contrary to IEPA assertions, there is no "overflow" of dry CCR within Pond 6. Pond 6 is a moat created for and serving the purpose of collecting stormwater runoff from the Former CCR Landfill.

- IEPA's contention that Pond 6 includes some or all the Former Landfill Area is based purely on incorrect and unsupported conjecture. For example, IEPA Ex. AA and RR only confirm the fact that Pond 6 is made up of the horseshoe shaped area that catches stormwater runoff from the Former CCR Landfill (which in certain historical documents is referred to as the "scrubber sludge storage area"). IEPA Ex. RR (noting a "dike" i.e. Pond 6 was being built around the scrubber sludge storage area "to contain any possible runoff"); IEPA Ex. AA (showing the "Scrubber Storage Area" with the horseshoe shaped area dredged to create Pond 6 around it to collect runoff). Aerial photos provided by the Agency do not support the Agency's contention that "CCR placed inside the diked area of Pond 6 has always been in direct contact with water" or that "piling of dry CCR in Pond 6 overflowed the limits of Pond 6." 2023 Recommendation at 99. Rather, they show that Pond 6 was located around the east, north and west sides of the Former CCR Landfill to collect runoff, consistent with good management practices. SIPC Ex. 40 at 13. By the Agency's logic, any pond located adjacent to a landfill used to collect stormwater runoff from a landfill will automatically turn the landfill itself into a CCR surface impoundment. On the contrary, they are two separate units. Landfills need management practices, such as moats, ponds, or ditches to control runoff. These runoff areas are necessarily located below the waste/sludge, so that runoff may be collected and controlled. SIPC Ex. 40 at 13. USEPA has further clarified that "[a] CCR leachate pond, or impoundment; i.e. an impoundment that holds leachate from CCR landfills and not CCR" does not meet the definition of CCR surface impoundment. SIPC Ex. 34. As noted above, USEPA has also

explained that "[s]surface runoff, coal pile runoff, CCR landfill leachate, stormwater and evaporation ponds would not generally be expected to meet the definition of a CCR surface impoundment." *Id.*

- IEPA incorrectly and misleadingly asserts that the contents of Pond 6 "were being dredged to increase the water treatment capacity of Pond 6." 2023 Recommendation ¶ 102. In fact, Pond 6 (*i.e.*, the area next to the Former CCR Landfill used to control runoff) was dredged for water retention to provide better capacity for hydraulic control. SIPC Ex. 40 at 13.
- IEPA incorrectly asserts that the sediment in Pond 6 is "almost 100% CCR." 2023 Recommendation ¶ 108. Again, IEPA appears to mistakenly assume the "Other" category identified using PLM microscopy is CCR. It is not and CCR makes up only a portion of the samples collected from Pond 6. SIPC Ex. 40 at 13; *see also* SIPC Ex. 29 at 14.
- The Agency appears to question why samples were not collected from two locations within Pond 6. As explained in SIPC Ex. 29, samples were not collected due to accessibility constraints. SIPC Ex. 29 at 6.

If the Board finds that one or more of these De Minimis Units are regulated under Part 845, they are nonetheless unique from the typical CCR surface impoundments contemplated when promulgating Part 845 and qualify for the limited adjusted standards requested below.

B. The Former CCR Landfill

IEPA has identified the Former CCR Landfill's proximity to and use of Pond 6 and the presence of long narrow areas of water at the top of portions of the Former CCR Landfill as reasons for its re-identification of the Former CCR Landfill as a CCR surface impoundment.[11] However, as explained below, this Former CCR Landfill—operated, identified and treated as a landfill for decades—cannot properly be re-categorized as a CCR surface impoundment.

a) IEPA's Claim that the Former CCR Landfill became a CCR Surface Impoundment Upon Promulgation of Part 845 is Without Merit.

The Former CCR Landfill is a landfill not a surface impoundment. As discussed above, IEPA appears to consider some or all of this area to be part of Pond 6. However, the Former CCR

[11] In truth, the Agency has not provided, in any clear terms, the area of the Former CCR Landfill it is considering to be part of a CCR surface impoundment/Pond 6.

Landfill was long considered to be, and treated as, a landfill by IEPA. The Agency, by its own admission, changed its characterization of this area on or about May of 2021. *See* IEPA's Response to SIPC's Second Set of Interrogatories, Interrogatory 18 (June 9, 2023), SIPC Ex. 42; *see also* IEPA Bureau of Land, Response/Document Review at Marion Station (May 7, 2021), SIPC Ex. 43. However, a unit can only be a landfill or a surface impoundment. It cannot be not both. As a landfill that was regulated under Part 815, the Former CCR Landfill necessarily cannot be a CCR surface impoundment. The promulgation of Part 845 provides no basis for the reclassification of the landfill to a surface impoundment.

A long-settled facet of Illinois law, and federal law, is that surface impoundments and landfills are exclusive of one another. As explained in Part 810 of the Illinois Administrative Code, a landfill is defined as "a unit or part of a facility in or on which waste is placed and accumulated over time for disposal, and *that is not* a land application unit, *a surface impoundment* or an underground injection well. For the purposes of this Part and 35 Ill. Adm. Code 811 through 815, landfills include waste piles, as defined in this Section." 35 Ill. Admin. Code § 810.103 (emphasis added). A surface impoundment, on the other hand, is defined in Part 810 as "a natural topographic depression, a man-made excavation, or a diked area into which flowing wastes, such as liquid wastes or wastes containing free liquids, are placed. *For the purposes of this Part and 35 Ill. Adm. Code 811 through 815, a surface impoundment is not a landfill*." *Id.* (emphasis added).

Based on these definitions alone, a unit classified as a landfill under Illinois law is not and could not be a surface impoundment, even with Part 845's later addition of the definition of a "CCR surface impoundment," which remains notably similar to the definition of "surface impoundment" provided in Section 810.103. *Compare id. with* 30 Ill. Admin Code § 845.120 (defining "CCR surface impoundment" as "a natural topographic depression, man-made

excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the surface impoundment treats, stores, or disposes of CCR"); *see also* 415 ILCS 5/3.143.[12] The material difference between Section 810.103's definition of "surface impoundment" and Section 845.120's definition of surface impoundment is simply that the surface impoundment holds (or has placed within it) CCR, as opposed to other wastes, and the surface impoundment "treats stores, or disposes of CCR." 30 Ill. Admin Code § 845.120 (emphasis added). The Board has recognized the mutual exclusivity of landfills and CCR surface impoundments, finding (before the promulgation of Part 845) that the landfill regulations do not apply to CCR surface impoundments. *See* AS 2009-001, *In the Matter of: Petition of Ameren Energy Generating Company for Adjusted Standards from 35 Ill. Adm. Code Parts 811, 814, and 815 (Hutsonville Power Station)*, Order of the Board (Mar. 5, 2009) (determining that a site-specific rulemaking—and not the existing landfill regulations—was more appropriate to regulate the closure of CCR surface impoundments)*; see generally* R2009-021, *In the Matter of: Ameren Ashpond Closure Rules (Hutsonville Power Station): Proposed 35 Ill. Adm. Code 840.101 through 840.152 (Site Specific Rulemaking)*. Thus, the Former CCR Landfill can be a landfill or a surface impoundment but not both. If the Former CCR Landfill is, indeed, a CCR surface impoundment it never could have or should have been considered a Part 815 landfill because it would have met the definition of a surface impoundment under Section 810.103.[13] For decades, until May 2021, IEPA was aware of the Former CCR

[12] While the Part 845 regulations do not regulate landfills and, therefore, do not define "CCR landfills," Part 257 does include a definition of "CCR landfill" that is very similar to the Illinois definition of landfill (again just adding the presence of CCR). "*CCR landfill or landfill* means an area of land or an excavation that contains CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR." 40 C.F.R. § 257.53.

[13] There has been no change in the definitions found in Part 810 since the promulgation of Part 845. If a Part 815 landfill can now be recategorized as a CCR surface impoundment in creates a clear tension between Part 845 and the Illinois landfill regulations.

Landfill, conducted numerous inspections of the unit and its operations (landfill operations started in 1978), and never challenged the area's classification as a landfill:

- Landfill operations began in or about 1978. SIPC Ex. 16 at 9.
- IEPA received an "Initial Facility Report – For On-Site Facilities" for the unit, required for 35 Ill Admin. Code Part 815 landfills—on or around September 1992. *Id.*
- SIPC routinely submitted annual On-site Permit Exempt "815" Facility reports to IEPA for the Former CCR Landfill in accordance with the Illinois landfill regulations. *Id*; *see also* Examples of Onsite Permit Exempt "815" Facility Annual Reports (2009 and 2019), SIPC Ex. 44.
- IEPA conducted inspections of the landfill and appeared to consider the "landfill" to include that portion of the Former CCR Landfill placed on top of the Former Fly Ash Holding Units and possibly to even include the Former Fly Ash Holding Units themselves. *See, e.g., id.*; September 13, 1993 and August 27, 2009, RCRA Inspection Reports, SIPC Ex. 45 (identifying landfill area as approaching Lake of Egypt Road to the south); Ex. 16. As part of an IEPA inspection of the Station in 1993, IEPA observed "The process of coal combustion generates bottom ash, fly ash, and scrubber ash. The bottom ash is used by Ground Grit of New Orleans, Louisiana, in the manufacture of roofing products. The fly ash and scrubber ash are landfilled on-site." *Id.*
- On September 27, 2019, IEPA conducted an inspection of the Former CCR Landfill, treating it as a unit regulated under Illinois's landfill regulations. In the inspection report, IEPA states that "[o]n September 27, 2019, an inspection was conducted at the [SIPC] onsite landfill. The landfill is regulated under 35 Illinois Administrative Code 815." *See* SIPC Ex. 16 (emphasis added). The inspection report goes on to describe the area of the landfill explaining that "[t]he onsite landfill is situated on the north side of Lake of Egypt Road. [IEPA] was informed landfill operations began about 1978. The landfill is approximately 50 acres in size. It was used for the deposition of mostly scrubber sludge as well as some fly ash." *Id.* The inspection report further provides site diagrams clearly labeling as an "815 Landfill" the area that IEPA now claims is part of "Pond 6." *Id.*
- On or about May 3, 2021, IEPA recategorized the Former CCR Landfill as a CCR surface impoundment: "The Illinois EPA's BOL was recently informed by the Illinois EPA's BOW that the area at Southern Illinois Cooperative which BOL has considered to be a Part 815 on site landfill meets the definition of a [CCR] surface impoundment and should be addressed by BOW under Part 845." SIPC Ex. 43 (emphasis added).

Further, as a Part 815 onsite landfill, the Former CCR Landfill necessarily is not "a natural topographic depression, a man-made excavation, or a diked area designed to hold an accumulation of CCR and liquids." 30 Ill. Admin Code § 845.120. There is no depression, excavation or diked area (other than the dike that was created for the stormwater runoff pond, *i.e.*, Pond 6) surrounding

the Former CCR Landfill. This area is more appropriately defined, per the federal CCR rules, as a former CCR landfill that would be considered a CCRMU under the newly promulgated expansion of the federal CCR regulations. *See* 40 C.F.R. § 257.53 (defining CCRMU).

b) IEPA's Reasons for Categorizing the Former CCR Landfill as a CCR Surface Impoundment Are Unconvincing.

The Agency argues that some or all of the Former CCR Landfill is an impoundment due to its construction in nexus to Pond 6 and suggests the presence of long narrow areas of water on top of the landfill.

For the reasons explained in SIPC's discussion of Pond 6, above, the Former CCR Landfill is not "part of Pond 6," which serves to separately collect runoff from the landfill, which sits above and slopes towards Pond 6. *See supra* at 17-18. Its simple nexus to Pond 6 does not make it a surface impoundment.

Additionally, Agency correctly observes the historical presence of long narrow areas of water located on top of a portion of the Former CCR Landfill. 2023 Recommendation ¶ 108. These long narrow areas were used in the event of emergency conditions during sub-freezing temperatures, when scrubber solids were temporarily pumped into these strips on top of the Former CCR Landfill. The scrubber solids were allowed to decant, and the solids were then removed from the strips and placed dry onto the Former CCR Landfill. SIPC Ex. 41. SIPC understands this may be viewed as a temporary "accumulation of CCR and liquids," however these strips make up just a portion of the broader Former CCR Landfill where CCR was not sluiced (as is characteristic of CCR surface impoundments) but was disposed of dry via a hydroveyer system. Petition at 5-6.

If the Board determines this brief accumulation meets the definition of CCR surface impoundment, that definition should apply only to the areas of the narrow strips not the entirety of

the landfill where CCR was disposed of dry.[14] Regardless of whether the Board finds these narrow strips meet the definition of a CCR surface impoundment; the entirety of the Former CCR Landfill (including the area that used to house this narrow strips) is clearly different from CCR surface impoundments contemplated when promulgating Part 845 and qualifies for the adjusted standard requested below.

C. The Former Fly Ash Holding Units Are CCRMUs.

IEPA classifies the Former Fly Ash Holding Units (which include the Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, and Fly Ash Holding Area Extension) as inactive CCR surface impoundments because they contained CCR and liquids at one point and were not closed. This is incorrect; the units were dewatered and closed, and USEPA and Board guidance suggest these units should more appropriately be classified as CCRMUs or unconsolidated ash.

Guidance from USEPA and the Board's sub-docket, R2020-019 (A), *In the Matter of: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845 (Sub Docket A)*, Opinion and Order of the Board at 12 (Feb. 4, 2021), suggests the Former Fly Ash Holding Units are more accurately categorized as unconsolidated structural fill for the Former CCR Landfill that sits atop them. In the 2024 Legacy Rule adopted by USEPA, it provides the following example of a CCRMU: a regulated utility pointed to an "'underlying historic ash impoundment and other closed stages of the landfill'" that were not regulated by the 2015 CCR Rule. Specifically, "[p]rior to development of the 60-acre [a]sh [l]andfill, CCR was disposed in an impoundment from approximately 1939 to 1978. After the impoundment was dewatered in 1978, dry CCR was disposed in this area in several stages of CCR placement up until the time Ash Landfill began operation." Revised SIPC Ex. 33 at 39,038-039

[14] As of October 2015, the landfill stopped receiving all CCR and these strips were no longer present.

(provided as an example of a CCRMU). This factual situation is analogous to that of the Former Fly Ash Holding Units and the Former CCR Landfill that now sits on top of them. The Former Fly Ash Holding Units were dewatered and dry CCR was placed on top of these units, making up the Former CCR Landfill. The Former Fly Ash Holding Units serve as structural fill providing a base for the Former CCR Landfill. Thus, these historic units are CCRMUs or unconsolidated ash and should not be considered CCR surface impoundments.

IEPA's Recommendation further engages in certain incorrect and speculative characterization of the Former Fly Ash Holding Units, which are dewatered and closed.

- IEPA assumes that the Initial Fly Ash Holding Unit continued to contain CCR and water after its closure in the late 1970s. 2023 Recommendation ¶ 114–116. However, as noted in the Petition, in October 1977, IEPA issued a permit to SIPC for the abandonment and cover of the Initial Fly Ash Holding Unit and allowing for construction of the Replacement Fly Ash Holding Unit in 1977. IEPA Water Pollution Control Permit, No. 1977-EN-5732 (Nov. 14, 1977), SIPC Ex. 5. Aerial photographs from the 1990s show the area to be dry and clear of any water. IEPA Ex. 3. Additionally, there is an approximately 40-foot elevation gain in the top of the Initial Fly Ash Holding Unit between 1977 and 2007. SIPC Ex. 40 at 14-15. IEPA observes the presence of ponding in aerials from the 2000s. After the closure of the Initial Fly Ash Holding Unit, the Former CCR Landfill extended onto the top of the dewatered and closed unit. Starting around 2000, a cavity built within this area was used as a holding pond for coal yard runoff. It was also used during emergency operating conditions at sub-freezing temperatures to receive scrubber solids. Any solids placed in this area were removed in short order and placed on the Former CCR Landfill. SIPC Ex. 41.
- IEPA inappropriately relies upon an aerial photo from 2009 to conclude that CCR from the Replacement Fly Ash Holding Unit was being managed in connection with water at that time. However, the aerial photo suggests that the sediment accumulation observed in the aerial is not due to the Replacement Fly Ash Holding Unit. SIPC Ex. 40 at 14.
- IEPA misleadingly seems to suggest visible water in aerials demonstrates the Fly Ash Holding Extension contained water and CCR until 2021. However, contrary to the Agency's assertion, the aerials themselves do not show the continued presence of water. *See, e.g.,* IEPA Ex. 4–14. What the Agency notes is likely some ponding on top of the closed unit due to rainfall. SIPC Ex. 41.
- IEPA does not rebut the fact that dry ash, associated with the Former CCR Landfill, was placed on top of the Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, and Fly Ash Holding Area Extension or that some or all of this area was treated as landfill under Part 815 of the Illinois Regulations until May 2021. *See, e.g*., January 2023 Recommendation at ¶ 100; Ex. 42.

If the Board finds that the Former Fly Ash Holding Units are regulated under Part 845, regardless of their use as structural fill for the Former CCR Landfill, they clearly are unique from the CCR surface impoundments contemplated when promulgating Part 845—including because of their co-location with the Former CCR Landfill—and qualify for an adjusted standard as set forth below.

III. IEPA Fails to Rebut SIPC's Justification for an Adjusted Standard.

Putting aside a finding of inapplicability, SIPC has proposed a reasonable, limited, justified, and protective adjusted standard for the unique units that are the subject of this proceeding. IEPA provides a circular argument: because these units are CCR surface impoundments, an adjusted standard is not appropriate. 2025 Amended Recommendation ¶ 23; 2023 Recommendation at 62–63. But this entirely ignores and defeats the purpose of adjusted standards, which allow for an adjustment from regulatory provisions when they would, otherwise, be applicable. 415 Ill. Comp. Stat. 5/28.1; Second Notice Op. and Order at 17 (explaining an entity may avail itself of an adjusted standard to address site-specific issues).

Thus, an adjusted standard may be granted when the rules would otherwise *apply* but the petitioner demonstrates that

> (1) factors relating to that petitioner are substantially and significantly different from the factors relied upon by the Board in adopting the general regulation applicable to that petitioner;
>
> (2) the existence of those factors justifies an adjusted standard;
>
> (3) the requested standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability; and
>
> (4) the adjusted standard is consistent with any applicable federal law.

415 Ill. Comp. Stat. 5/28.1(c)(1)–(4).

In its Petition, SIPC provided evidence in support of each of these elements along with a significantly narrowed adjusted standard proposal. While IEPA responded to certain points related to SIPC's *initial* adjusted standard proposal in its 2023 Recommendation, IEPA's 2025 Amended Recommendation does not respond to SIPC's amended adjusted standard proposals (other than discussing certain points made in SIPC's Exhibits 36, 37, and 38, which were new exhibits provided with the Second Amended Petition). Below, SIPC explains how points raised by the Agency regarding SIPC's Exhibits 36 through 38 are incorrect and/or irrelevant, and how the Agency entirely fails to rebut Petitioner's demonstration in support of the requested adjusted standards.

Ultimately, IEPA provides no evidence to rebut SIPC's demonstration that factors relating to the units that are the subject of this proceeding are substantially and significantly different from the factors the Board relied upon in adopting Part 845 and that those factors justify the requested adjusted standards. IEPA further generally opines that there will be "significant" impact to human health or the environment from SIPC's proposed adjusted standards without justification or evidence demonstrating how SIPC's limited adjusted standard will be less protective than if Part 845 applied in its entirety. 2023 Recommendation at 63.

A. SIPC's Requested Adjusted Standard.

SIPC's requested adjusted standards are narrow in scope. For each of the units at issue in this proceeding, SIPC is proposing to monitor, close, and comply with corrective action requirements in accordance with Part 845 requirements.[15]

Pond 3/3a and the South Fly Ash Pond: For Pond 3/3a and the South Fly Ash Pond, SIPC is proposing that the full scope of Part 845 requirements apply. The only "adjustment" SIPC is

[15] Accordingly, costs associated with the adjusted standard will be fairly similar to the cost of full compliance with Part 845. Estimates related to such costs are provided in SIPC Ex. 9.

seeking is from the dates by which operating permit and closure construction permit applications are due. While not explicitly stated, IEPA does not appear to have an issue with SIPC's proposal for Ponds 3/3a and the South Fly Ash Pond other than to shorten the due date for these units' (and the other De Minimis Units') operating permit applications to six months from SIPC's proposed twelve months and to lengthen the due date for these units' (and the other De Minimis Units') closure construction applications to sixteen months from SIPC's proposed twelve months. 2025 Amended Recommendation ¶¶ 28, 34. SIPC appreciates the Agency's support for a 16-month closure construction permit application time frame and accepts this proposed revision for these units and the other De Minimis Units. SIPC still believes a 12-month timeframe for the submittal of an operating permit is appropriate for the reasons explained in its Petition and Section III.B, below. *See* The Second Declaration of Ken Liss, SIPC Ex. 47.

Former Pond B-3: The adjusted standard SIPC is proposing for Pond B-3 includes the same operating permit application timeframe adjustment as Pond 3/3a and the South Fly Ash Pond. Additionally, given the unit's unique characteristics of having already undergone dewatering and sediment removal (*see* Petition at 50–52; Section III.B below) it does not make practical sense (1) for Part 845's location restriction, design criteria, and certain other operating criteria to apply to Former Pond B-3 or (2) for the full Part 845 construction permit process to apply to Former Pond B-3. IEPA's Recommendation does not respond to any of the points made in SIPC's Petition regarding factors justifying SIPC's proposed adjustment from these limited elements of Part 845 for Former Pond B-3 or explaining how they will not have any adverse effect to human health or the environment.

Pond 4: The adjusted standard SIPC is proposing for Pond 4 includes the same operating permit timeframe adjustment as Pond 3/3a and the South Fly Ash Pond. In addition, SIPC requests

an adjustment to the closure construction permit application timeframe to require the submittal of such a permit upon the earlier of (1) twelve months of a finding that CCR within Pond 4 is causing or contributing to an exceedance of the Section 845.600 groundwater protection standards or (2) the end of the life of the Station. IEPA's Recommendation does not respond to points raised about Pond 4's unique position in SIPC's current operations and otherwise raises irrelevant points in opposition to the adjustment SIPC is seeking to the closure construction permit application timeframe. However, the proposed adjustments are justified based on site-specific conditions and will not have any adverse impact on human health or the environment. *See* discussion in Section III.B and C, below.

The Former Landfill Area and Pond 6: SIPC proposes an adjusted standard that will result in monitoring, closure, and corrective action, as necessary, of the Former Landfill Area and Pond 6[16] in accordance with the requirements in Part 845. However, due to the unique nature of this area, Petitioner requests adjustments related to the timing of operating and closure construction permit application submissions, the closure alternative assessment requirements in Section 845.710, and, relatedly, the ability to explore possible closure of the Former Landfill Area by removal of the CCR for beneficial use. IEPA does not respond to any of the points made in SIPC's Petition regarding factors justifying SIPC's proposed adjustments from these limited elements of Part 845 for the Former Landfill Area and Pond 6.

B. Factors Relating to the Units at Issue Are Substantially and Significantly Different from the Factors Relied Upon by the Board in Adopting the General Regulation Applicable to those Units and those Factors Justify the Requested Adjusted Standards.

[16] Because Pond 6 is needed to collect runoff from the Former Landfill Area, it makes sense to close these areas together and to, therefore, include them as part of the same adjusted standard.

De Minimis Units: With respect to the De Minimis Units, even if the Board finds the units do not qualify for inapplicability based on the de minimis amounts of CCR the units contain, the factors relating to these units are substantially and significantly different from the factors relied upon by the Board in adopting the Part 845 regulations.

First, IEPA, without support or explication, asserts that the De Minimis Units are the types of ponds that were found to pose a risk in USEPA's 2014 Risk Assessment, which served as the basis of USEPA's promulgation of the federal CCR rules and in turn the Board's promulgation of Part 845. 2025 Amended Recommendation ¶ 14. As Ms. Lewis explains, however, IEPA's assertion is incorrect. USEPA's 2014 Risk assessment was "designed to characterize the full range of possible risks to human health posed by CCR disposal units across the US." Ari Lewis, M.S. *Support for the Petition of an Adjusted Standard for Pond 4, Ponds 3 and 3A, Pond S-6, Former Pond B-3, and South Fly Ash Pond* (Dec. 20, 2024), SIPC Ex. 36 at 11. The assessment analyzed a wide range of human health and ecological exposure pathways. Id. at 11-12. As Ms. Lewis points out, USEPA's 2014 Risk Assessment found that only CCR surface impoundments at the 90th percentile present a risk. SIPC Ex. 36 at 11–12. As she notes, the De Minimis Units are significantly different from the impoundments that were found to pose a risk in the 2014 CCR Risk Assessment. The 2014 CCR Risk Assessment was focused on units that "receive[] waste sluiced from the facility" and "contain a large amount of CCR managed with water." *Id.* at 13-14. The De Minimis Units, with the exception of Former Pond B-3 on a few rare occasions, did not ever receive CCR that was directly sluiced from the facility and never received large amounts of CCR when compared to the universe of nationwide CCR surface impoundments evaluated in USEPA's 2014 Risk Assessment. *Id.*

Even if the Board determines the amount of CCR in these units is more than de minimis, it is still much less than the amount of CCR typical to the universe of regulated CCR surface impoundments and less than the amount of CCR in the types of units USEPA found would pose a risk warranting regulation of CCR surface impoundments. As noted, the 2014 Risk Assessment only found risk in impoundments within the 90th percentile of the units evaluated. The 2014 Risk Assessment evaluated over 700 units and, of those over 700 units, only 13 had a listed waste depth of less than 2 feet. USEPA, *Human and Ecological Risk Assessment of Coal Combustion Residuals* (Dec. 2014), SIPC Ex. 46 at Attachment A-2. Meanwhile, all the De Minimis Units have a sediment depth of less than two feet and contain an amount of CCR that would create a "depth" of less than one foot. SIPC Ex. 36 at 15. All 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. *Id.*

Table 4.4 Comparison of Thicknesses with SI Depth Distribution

Storage Pond	CCR Thickness (ft)	Sediment Thickness (ft)	CCR Thickness as Percentile of Depth Distribution of SI in 2014 CCR Risk Assessment	Sediment Thickness as Percentile of Depth Distribution of SI in 2014 CCR Risk Assessment
South Fly Ash Pond	0.63	1.57	1%	2%
Pond 3	0.39	1.38	< Minimum SI Depth	1%
Pond 3A	0.39	1.45	< Minimum SI Depth	2%
Pond S-6	0.35	0.84	< Minimum SI Depth	1%
Pond 4	0.90	1.67	1%	2%

Notes:
CCR = Coal Combustion Residuals; SI = Surface Impoundment.
Source: Haley & Aldrich, Inc. (2021); US EPA (2014).

SIPC Ex. 36 at 15 (noting that, in contrast, the 50th percentile of units in the 2014 Risk Assessment had a depth of 13.6 feet, the 90th percentile had a depth of 36.6 feet, and the maximum depth of CCR in units was 190.1 feet).

Second, for Pond 4, IEPA fails to rebut the fact that this unit is an essential part of current facility operations, serving to control stormwater runoff from the coal pile at the Station. It also does not rebut the unique nature of Pond 4. As Ms. Lewis and Mr. Hagen point out, the majority

of CCR surface impoundments contain large amounts of CCR managed with water and serve a primary purpose of managing CCR. SIPC Ex. 29 at 7 ("Based on [USEPA] information, CCR disposal typically occurs at more than 735 active on-site CCR surface impoundments, which average more than 50 acres in size and have an estimated average depth of 20 feet of ash"); *see also* Ex. 36 at 10. Pond 4 is much smaller and contains much less CCR than the typical CCR surface impoundment. Ex. 36; Ex. 38 at 4-5. Also, evidence demonstrates that Pond 4's primary purpose, unlike typical CCR surface impoundments, was not to hold or manage CCR. While it did receive decanted water from Ponds 1 and 2, it also received water from a variety of other sources, included coal pile runoff. When sediment was removed from Pond 4 historically, it was burned for fuel. SIPC Ex. 32. You cannot burn CCR for fuel. SIPC Ex. 41; SIPC Ex. 29 at 8. The carbon content of sediment samples collected from Pond 4 further indicate sediment in Pond 4 is not CCR. SIPC Ex. 29 at 8. Thus, unlike other CCR surface impoundments, much of the sediment that entered this unit was made up of coal fines from runoff from the coal pile. This unit continues to serve the important function of collecting coal pile runoff. It is in a unique position to serve this function given its location at the Station. *See* Site Map prepared by Andrews Engineering for SIPC (May 2021), SIPC Ex. 3.

Third, with respect to Former Pond B-3, IEPA ignores various factors supporting an adjustment from certain Part 845 elements related to ongoing operation and the closure application process. Specifically, in 2017, prior to promulgation of Part 845, this unit was cleaned of sediment down to the clay and dewatered. *See, e.g.*, IEPA Ex. 16–18. The only feature that remains within the Former Pond B-3 is an internal berm. As can be seen in recent aerials, the cleaned area is dry and vegetated. *Id.* Most CCR surface impoundments regulated under Part 845 continue to contain both sediment and water after promulgation of the regulation. For such units, it makes sense for

the location restrictions, design criteria, and operating criteria in Subparts C, D, and E of Part 845 to apply, as these provisions are aimed at preventing the release of CCR. However, absent both sediment and water, it makes little sense for the location restrictions, design criteria and operating criteria in subparts C, D and E of Part 845 to apply to Former Pond B-3.[17]

IEPA provides no response to SIPC's requested adjusted standard for Former Pond B-3. SIPC's adjusted standard does not request adjustment from the portions of these Subparts that make practical sense to apply to Former Pond B-3 in its current condition, including the slope maintenance requirements in Section 845.430, the Emergency Action Plan requirements in Section 845.520, and the Annual Groundwater Monitoring and Corrective Action Requirements in Section 845.550. *See* Petition, Appendix A (setting forth the details of the proposed adjusted standard). IEPA similarly provides no response to SIPC's evidence justifying an adjustment from certain elements of the closure construction permitting requirements for Former Pond B-3. Again, given that this unit has been dewatered and cleaned to the clay, and the only material that remains is a small internal berm with little to no CCR, SIPC has proposed an adjusted standard that would require the unit to complete closure by removing the internal berm in accordance with the closure by removal performance standards in Section 845.740 and obviates the need for the construction permit application requirements outside of preparing a Final Closure Plan in accordance with Section 845.720(b) for the Agency's review and approval. Petition at 50–52.

Finally, IEPA suggests that six months is an appropriate timeframe to require operating permit application submissions for the De Minimis Units. However, IEPA's suggestion ignores the

[17] For example, the location restrictions in Subpart C are meant to apply to "existing, new, and laterally expanded CCR surface impoundments" and regulate the location of the unit to minimize the threat of release. However, Former Pond B-3 is not an existing, new, or laterally expanded CCR surface impoundment. Subpart D, with the exception of Section 845.430, also contemplates the ongoing conditions of a CCR surface impoundment, including the existence of CCR and water. Subpart E, with the exception of 845.550, does the same.

unique circumstances that support a need for additional time to provide a technically supportable operating permit application. Part 845 requires an operating permit application to include a groundwater monitoring program. 35 Ill. Admin. Code § 845.230. That groundwater monitoring program must include a minimum of eight independent samples from each background and downgradient well. 35 Ill. Admin. Code §§ 845.230, .650. Ideally, such sampling would occur over the course of eight separate quarters or at least four separate quarters to account for seasonality within the results. SIPC Ex. 47. While other units regulated under Part 845 were already subject to the federal CCR rule and would have, therefore, already had a groundwater monitoring program in place to account for seasonality (or at least seasonality at the monitoring locations used under the federal CCR program), the De Minimis Units at issue in this Petition have not undergone groundwater monitoring under the federal CCR program. Further, site conditions at the Station are unique in that groundwater flow is slow. SIPC Ex. 47. All these conditions weigh in favor of sampling occurring over a longer period of time, at least one year, to properly account for site conditions. *Id.*

Former Landfill Area: The Former Landfill Area is made up of the Former Fly Ash Holding Units (the Initial Fly Ash Holding Unit, Replacement Fly Ash Holding Unit, and Fly Ash Holding Area Extension) and the Former CCR Landfill that is located adjacent to and on top of portions of the Former Fly Ash Holding Units. Given the operating history of this area, this area needs to be treated as a single unit for the implementation of any closure measures and other requirements imposed under Part 845. *See, e.g.,* Andrews Engineering, SIPC's Proposed Closure Plan for IEPA Site No. 199055505 (Dec. 16, 2020), SIPC Ex. 10 (due to co-location of the Former CCR Landfill on top of the Former Fly Ash Holding units, setting forth a landfill closure plan,

submitted to IEPA prior to re-classification of this area, incorporating the entirety of this "Former Landfill Area").

IEPA fails to rebut evidence SIPC has provided demonstrating that factors related to the Former Landfill Area are substantially and significantly different than the factors relied upon in promulgating Part 845. This includes the fact that areas such as this were not the focus of the 2014 Risk Assessment that serves as the justification for regulation of CCR surface impoundments.[18] That 2014 Risk Assessment identified the Former Landfill Area as a landfill. SIPC Ex. 46 at A-2-6. Further, it was focused on units with CCR managed "under a hydraulic head that promotes the rapid leaching of contaminants." Revised SIPC Ex. 17 at 21,357. When promulgating Part 845, the Board did not discuss or consider the regulation of units considered to be Part 815 landfills under Illinois law as CCR surface impoundments. No such discussion can be found in the record of the part 845 proceeding. *See generally* R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*.SIPC is unaware of any other unit in Illinois being regulated as a CCR surface impoundment that was earlier designated as a landfill. Meanwhile, IEPA does not dispute that some or all the Former Landfill Area was treated as a landfill by IEPA and managed by SIPC as a landfill for decades. SIPC Ex. 42. Nor does IEPA dispute that, unlike other CCR surface impoundments, dry (*i.e.*, non sluiced) CCR was deposited into the Former Landfill Area.

IEPA also does not dispute the fact that the co-location of the Former CCR Landfill with the Former Fly Ash Holding Units would make it impractical to close the units separately from one another. Finally, IEPA does not challenge the fact that CCR within the Former Landfill Area is suitable for "beneficial use" as defined in 35 Ill. Admin. Code § 845.120, which may allow for

[18] The 2014 Risk Assessment did separately assess the risk of CCR landfills, finding no risk. SIPC Ex. 36 at 11-12.

closure of the Former Landfill Area by removal without requiring re-disposal of the CCR elsewhere and will allow the material to be used to make "green material" such as cement binder, sand, aggregate, and construction insulation. Petition at 65.

Finally, Petitioner has proposed a timeframe of eighteen months to submit operating permit and construction permit application materials for the Former Landfill Area. IEPA suggests operating permit application materials should be submitted within six months and construction permit application materials within sixteen months. IEPA's proposed timeline for operating permit application materials for the Former Landfill Area is not practicable for the same reasons such a timeline for is not practicable for the De Minimis Units. *See supra* at 32; SIPC Ex. 47. Like the De Minimis Units, none of the units in the Former Landfill Area are undergoing groundwater monitoring under the federal CCR regulatory program. Additionally, a slightly longer timeframe for submitting both operating and construction permit application materials is justified for the Former Landfill Area to allow SIPC the necessary time to pursue the unique opportunity of closing this area via removal while sending the CCR for beneficial use, including confirming opportunities and securing necessary contracts.

C. The Requested Standard Will Not Result in Environmental or Health Effects Substantially and Significantly More Adverse than the Effects Considered by the Board in Adopting Part 845.

Tellingly, IEPA broadly opines that there will be "significant" impacts to human health or the environment from SIPC's proposed adjusted standards without contemplating or discussing any specifics regarding how the limited requested adjustments will result in environmental or health impacts substantially and significantly more adverse than the effects considered by the Board in adopting Part 845. This is because SIPC's requested adjustments maintain the applicability of all the Part 845 requirements aimed at protecting human health and the

environment, including requirements to conduct groundwater monitoring, closure, and corrective action, if triggered, in accordance with Part 845. Analysis of whether the proposed adjusted standards are protective of human health and the environment need not go further than an acknowledgement that no adjustments are being requested from the groundwater monitoring and corrective action requirements in Part 845. Nonetheless, here, SIPC responds to certain incorrect and irrelevant points made by the Agency—which completely ignore the scope of the actual adjusted standard requested by SIPC—regarding impact to human health in the environment.

IEPA critiques the groundwater monitoring network and results provided in support of the Petition. These critiques are both irrelevant and incorrect.

- First, IEPA's assertions of potential adverse effects to human health or the environment based on certain exceedances of groundwater quality standard are irrelevant. SIPC's proposed adjusted standards, as set forth in its Petition, obligate SIPC to engage in corrective action under Part 845 in the event groundwater monitoring under Part 845 finds an exceedance of the Part 845 groundwater protection standards caused or contributed to by any of units that are the subject of this Petition. Petition, Appendix A. The corrective action requirements that will apply to each of the units will be no different than the corrective action requirements that apply to every CCR surface impoundment regulated under Part 845. Thus, if any unit subject to an adjusted standard is causing or contributing to an exceedance of the groundwater protection standards, the proposed adjusted standards will require action that is no different than required of any CCR surface impoundment regulated under Part 845.
- Second, IEPA makes several incorrect assumptions and assertions regarding the location of groundwater monitoring wells for which data is currently available. *See* SIPC Ex. 40 at 16-18 (responding in depth to assertions made by the Agency regarding the groundwater monitoring wells for which evidence was presented).
- Third, IEPA incorrectly asserts that groundwater monitoring demonstrates that CCR from Pond 4 is impacting groundwater. IEPA's statement is based on the presence of cadmium, cobalt, and lead in well S-6, which is the monitoring well with closest proximity to Pond 4. 2025 Amended Recommendation ¶¶ 18–19.[19] However, lead and mercury are not constituents that are attributable to CCR. *See* 35 Ill. Admin. Code § 845.600(a). While cobalt can be associated with CCR, the cobalt at well S-6 is not co-located with any CCR constituents USEPA has identified as indicator parameters for CCR detection monitoring, such as arsenic or boron, further suggesting the cobalt exceedance is not due to CCR. SIPC

[19] It also, contradictorily, asserts that SIPC will not be able to determine what groundwater impacts are from Pond 4 for purposes of determining whether corrective action is needed and early closure triggered under the proposed adjusted standard for Pond 4. 2025 Amended Recommendation ¶. 22.

> Ex. 17 at 21,342. Further, IEPA completely ignores the shake test results for Pond 4 demonstrating that the sediment in Pond 4 does not contain exceedances of CCR-attributable constituents. This further indicates it is unlikely that Pond 4 is contributing or would contribute to exceedances of Part 845 groundwater protection standards.

Ms. Lewis further found that none of the units, including Pond 4 and the Former Landfill Area, pose a risk to human health or the environment. IEPA mistakenly suggests that Ms. Lewis's analysis was limited to concluding no risk to human health given a lack of exposure to human health receptors. 2025 Amended Recommendation ¶ 15.c. It was not. Ms. Lewis's report includes a site-specific environmental risk evaluation, including ecological receptors, and concludes there is no unacceptable risk to the environment. SIPC Ex. 36 at 19.

Finally, IEPA asserts there is no way to "realistically assess the impact of Pond 4 closure relative to not closing Pond 4 at all." 2025 Amended Recommendation ¶ 22. Presumably, this statement is made in response to SIPC's requested adjusted standard for Pond 4 that would allow the unit to close at the end of life of the Station in the event Part 845 compliant groundwater monitoring indicated Pond 4 was not causing or contributing to exceedances of Part 845 groundwater protection standards. In fact, there is a way to assess the impact of Pond 4 closure's versus non-closure. Andrew Bittner, M.Eng., P.E. *Closure Impact Assessment, Pond 4* (Dec. 20, 2024), SIPC Ex. 38. As demonstrated in Mr. Bittner and Ms. Lewis's reports, based on data from shake tests conducted within Pond 4, monitoring conducted around Pond 4, and analysis of potentially impacted health and environmental receptors, there are no current risks to human health or the environment posed by Pond 4 and there is no indication that closure will result in an improvement in groundwater quality or present less risk to other sensitive receptors. SIPC Ex. 38; *See also* SIPC Ex. 36. Nonetheless, as SIPC has indicated, the adjusted standard will require the immediate initiation of closure in the event CCR from Pond 4 is found to contribute to a groundwater protection standard exceedance.

D. The Adjusted Standard Is Consistent with any Applicable Federal Law.

SIPC explained the reasons an adjusted standard is consistent with applicable federal law in its Petition. Petition at 42–67. IEPA similarly concludes that Part 845 is "independent of the federal rule" and does not argue that this factor is a barrier to the Board granting an adjusted standard.

IV. Conclusion.

SIPC respectfully requests that the Board grant its request for inapplicability, or, in the alternative, an adjusted standard as set forth in its Petition.

Respectfully Submitted,

SOUTHERN ILLINOIS POWER COORPERATION

/s/ *Bina Joshi*
One of its attorneys

Dated: April 10, 2025

Joshua R. More
Bina Joshi
Sarah L. Lode
Amy Antoniolli
ArentFox Schiff LLP
233 South Wacker Drive, Suite 7100
Chicago, Illinois 60606
(312) 258-5500
Joshua.More@afslaw.com
Bina.Joshi@afslaw.com
Sarah.Lode@afslaw.com
Amy.Antoniolli@afslaw.com

COMPLETE INDEX OF EXHIBITS[20]

Revised SIPC Ex. 1	The Declaration of Wendell Watson
Revised SIPC Ex. 2	The Declaration of Todd Gallenbach
SIPC Ex. 3	Site Map prepared by Andrews Engineering for SIPC (May 2021)
SIPC Ex. 4	Lake Egypt Water District IL 1995200, Annual Drinking Water Quality Report (Jan. 1–Dec. 30, 2019)
SIPC Ex. 5	IEPA Water Pollution Control Permit, No. 1977-EN-5732 (Nov. 14, 1977)
SIPC Ex. 6	Letter from SIPC to IEPA (July 27, 1982)
SIPC Ex. 7	IEPA Water Pollution Control Permit, No. 1981-EN-2776-1 (Oct. 13, 1981)
SIPC Ex. 8	Letter from SIPC to IEPA (Sept. 16, 1993)
SIPC Ex. 9	Declaration of Kenn Liss
SIPC Ex. 10	Andrews Engineering, SIPC's Proposed Closure Plan for IEPA Site No. 199055505 (Dec. 16, 2020)
SIPC Ex. 11	Hanson, Emery Pond Corrective Action and Selected Remedy Plan, Including GMZ Petition (Mar. 29, 2019)
SIPC Ex. 12	IEPA Water Pollution Control Permit, No. 1989-EN-3064 (May 17, 1989)
SIPC Ex. 13	IEPA Reissued National Pollutant Discharge Elimination System Permit, No. IL0004316 (February 1, 2007)
SIPC Ex. 14	IEPA Water Pollution Control Permit, No. 1973-ED-1343-OP (June 1973)
SIPC Ex. 15	Initial Facility Report – for On-Site Facilities (Sept. 18, 1992)
SIPC Ex. 16	IEPA Violation Notice L-2020-00035 (Mar. 20, 2020
Revised SIPC Ex. 17	Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities, 80 Fed. Reg. 21,302 (April 17, 2015)
SIPC Ex. 18	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, IEPA's Statement of Reasons (Mar. 30, 2020)

[20] The Exhibits listed as 1-32 and 33-39 were filed with previous SIPC submissions in this proceeding. Revised SIPC Exhibit 33 and Exhibits 40-47 are attached to this Response.

SIPC Ex. 19	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, SIPC Comments to Illinois Pollution Control Board (Sept. 25, 2020)
SIPC Ex. 20	IEPA Violation Notice W-2020-00046 (July 28, 2020)
SIPC Ex. 21	IEPA Violation Notice W-2020-00087 (Dec. 16, 2020)
Revised SIPC Ex. 22	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, IEPA Responses to Pre-Filed Questions (Aug. 3, 2020)
SIPC Ex. 23	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, Hearing Transcript (Aug. 11, 2020)
SIPC Ex. 24	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, First Supplement to IEPA Pre-Filed Responses (Aug. 5, 2020)
SIPC Ex. 25	U.S. EPA, Comment Summary and Response Document: Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities; Proposed Rule, Vol. 3 (Dec. 2014)
SIPC Ex. 26	R2020-019, *In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845*, IEPA Post-Hearing Comments (Oct. 30, 2020)
SIPC Ex. 27	*In the Matter of Objection to the Issuance of Partial Approval of Closure/Post Closure Plan Duke Gallagher Generating Station Ash Pond System*, No. 20-S-J-5096 (OEA May 4, 2021)
Revised SIPC Ex. 28	Updated Opinion of Lisa Bradley
SIPC Ex. 29	Pond Investigation Report for Certain Ponds at SIPC's Marion Station
SIPC Ex. 30	The Supplemental Declaration of Kenneth W. Liss
SIPC Ex. 31	Amended Petition Redline
SIPC Ex. 32	The Declaration of Jason McLaurin
Revised SIPC Ex. 33	Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities;

	Legacy CCR Surface Impoundments, 89 Fed. Reg. 38,950 (May 8, 2024) (excerpted)
SIPC Ex. 34	U.S. EPA, *Frequent Questions about Definitions and Implementing the Final Rule Regulating the Disposal of Coal Combustion Residuals*
SIPC Ex. 35	Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy CCR Surface Impoundments, 88 Fed. Reg. 31,982, 32,018 (May 18, 2023)
SIPC Ex. 36	Ari Lewis, M.S. *Support for the Petition of an Adjusted Standard for Pond 4, Ponds 3 and 3A, Pond S-6, Former Pond B-3, and South Fly Ash Pond* (Dec. 20, 2024)
SIPC Ex. 37	Gradient, *Human Health Risk Assessment, Marion Power Station* (Dec. 20, 2024)
SIPC Ex. 38	Andrew Bittner, M.Eng., P.E. *Closure Impact Assessment, Pond 4* (Dec. 20, 2024)
SIPC Ex. 39	Second Amended Petition Redline
SIPC Ex. 40	Haley & Aldrich, *Evaluation Report: Southern Illinois Power Company Marion Station* (April 2025)
SIPC Ex. 41	The Second Declaration of Jason McLaurin
SIPC Ex. 42	IEPA's Response to SIPC's Second Set of Interrogatories, Interrogatory 18 (June 9, 2023) (excerpted)
SIPC Ex. 43	IEPA Bureau of Land, Response/Document Review at Marion Station (May 7, 2021)
SIPC Ex. 44	Examples of Onsite Permit Exempt "815" Facility Annual Reports (2009 and 2019)
SIPC Ex. 45	September 13, 1993 and August 27, 2009, RCRA Inspection Reports
SIPC Ex. 46	USEPA, *Human and Ecological Risk Assessment of Coal Combustion Residuals* (Dec. 2014) (excerpted)
SIPC Ex. 47	The Second Declaration of Ken Liss

REVISED
EXHIBIT 33

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 257

[EPA–HQ–OLEM–2020–0107; FRL–7814–04–OLEM]

RIN 2050–AH14

Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy CCR Surface Impoundments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: On April 17, 2015, the Environmental Protection Agency (EPA or the Agency) promulgated national minimum criteria for existing and new coal combustion residuals (CCR) landfills and existing and new CCR surface impoundments. On August 21, 2018, the United States Court of Appeals for the District of Columbia Circuit vacated the exemption for inactive surface impoundments at inactive facilities (legacy CCR surface impoundments) and remanded the issue back to EPA to take further action consistent with its opinion in *Utility Solid Waste Activities Group, et al.* v. *EPA.* This action responds to that order and establishes regulatory requirements for legacy CCR surface impoundments. EPA is also establishing requirements for CCR management units at active CCR facilities and at inactive CCR facilities with a legacy CCR surface impoundment. Finally, EPA is making several technical corrections to the existing regulations, such as correcting certain citations and harmonizing definitions.

DATES: This final rule is effective on November 4, 2024.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–OLEM–2020–0107. All documents in the docket are listed on the *http://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: For questions concerning this proposal, contact Michelle Lloyd, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, Environmental Protection Agency, 1200 Pennsylvania Avenue NW, MC: 5304T, Washington, DC 20460; telephone number: (202) 566–0560; email address: *Lloyd.Michelle@epa.gov,* or Taylor Holt, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, Environmental Protection Agency, 1200 Pennsylvania Avenue NW, MC: 5304T, Washington, DC 20460; telephone number: (202) 566–1439; email address: *Holt.Taylor@epa.gov.* For more information on this rulemaking, please visit *https://www.epa.gov/coalash*.

SUPPLEMENTARY INFORMATION:

Table of Contents

List of Acronyms

ACM Assessment of Corrective Measures
ANPRM Advance Notice of Proposed Rulemaking
ARAR applicable or relevant and appropriate requirements
ASD alternative source demonstration
CAA Clean Air Act
CBI Confidential Business Information
CBR closure by removal
CCR coal combustion residuals
CCRMU coal combustion residuals management unit
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CIP closure in place
CFR Code of Federal Regulations
COALQUAL U.S. Geological Survey coal quality database
CWA Clean Water Act
DOE Department of Energy
EAP Emergency Action Plan
EIA Energy Information Administration
EIP Environmental Integrity Project
EJ environmental justice
ELG Effluent Limitation Guidelines
EPA Environmental Protection Agency
EPACMTP EPA Composite Model for Leachate Migration with Transformation Products
EPRI Electric Power Research Institute
FER Facility Evaluation Report
FERC Federal Energy Regulatory Commission
FGD flue gas desulfurization
FR Federal Register
GWMCA groundwater monitoring and corrective action
GWPS groundwater protection standard
HQ hazard quotient
HSWA Hazardous and Solid Waste Amendments
ICR Information Collection Request
IRIS Integrated Risk Information System
LEAF Leaching Environmental Assessment Framework
MCL maximum contaminant level
MDE Maryland Department of the Environment
MNA monitored natural attenuation
MODFLOW–USG Modular Three-Dimension Finite-Difference Ground-Water Flow Model
MSW Municipal Solid Waste
MW Megawatts
NAICS North American Industry Classification System
NERC North American Electric Reliability Corporation
NODA notice of data availability
NPDES National Pollution Discharge Elimination System
NPL National Priorities List
NTTAA National Technology Transfer and Advancement Act
OAFU Other Active Facilities
OLEM Office of Land and Emergency Management
OMB Office of Management and Budget
OSHA Occupational Safety and Health Administration

P.E. Professional Engineer
PM particulate matter
PRA Paperwork Reduction Act
PRG preliminary remediation goal
PUC Public Utility Commission
QA/QC quality assurance/quality control
RCRA Resource Conservation and Recovery Act
RIA Regulatory Impact Analysis
RME reasonable maximum exposure
RTO Regional Transmission Organizations
SMCL secondary maximum contaminant level
SSI statistically significant increase
SSL statistically significant level
TDS total dissolved solids
TSCA Toxic Substances Control Act
TSDF Transportation Storage and Disposal Facility
TVA Tennessee Valley Authority
UMRA Unfunded Mandates Reform Act
USGS U.S. Geological Survey
USWAG Utility Solid Waste Activities Group
WIIN Water Infrastructure Improvements for the Nation
WQC water quality criteria

I. General Information

A. Does this action apply to me?

This rule applies to and may affect all CCR generated by electric utilities and independent power producers that fall within the North American Industry Classification System (NAICS) code 221112. The reference to NAICS code 221112 is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This discussion lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not described here could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 CFR 257.50 of title 40 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

B. What action is the Agency taking?

EPA is amending the regulations governing the disposal of CCR in landfills and surface impoundments, codified in subpart D of part 257 of Title 40 of the Code of Federal Regulations (CFR) (CCR regulations). Specifically, the Agency is establishing regulatory requirements for inactive CCR surface impoundments at inactive utilities (''legacy CCR surface impoundment'' or ''legacy impoundment''). This action is being taken in response to the August 21, 2018, opinion by the U.S. Court of Appeals for the District of Columbia Circuit in *Utility Solid Waste Activities Group* v. *EPA,* 901 F.3d 414 (D.C. 2018) (''*USWAG* decision'' or ''*USWAG*'') that vacated and remanded the provision exempting legacy impoundments from the CCR regulations. This action includes adding a definition for legacy CCR surface impoundments and other terms relevant to this rulemaking. It also requires that legacy CCR surface impoundments comply with certain existing CCR regulations with tailored compliance deadlines.

While this action is responsive to the D.C. Circuit's order, it is also driven by the record, which clearly demonstrates that regulating legacy CCR surface impoundments will have significant quantified and unquantified public health and environmental benefits. As EPA concluded in 2015, the risks posed by unlined CCR surface impoundments are substantial, and the risks from legacy impoundments are at least as significant. EPA's 2014 Risk Assessment concluded that the cancer risks from unlined surface impoundments ranged from 3×10^{-4} for trivalent arsenic to 4×10^{-5} for pentavalent arsenic. Non-cancer risks from these same units also significantly exceeded EPA's level of concern, with estimated Hazard Quotients (HQ) of two for thallium, three for lithium, four for molybdenum and eight for trivalent arsenic. In addition, as described in Unit III.A.1 of this preamble, information obtained since 2015 indicates that the risks for legacy CCR surface impoundments are likely to be greater than EPA originally estimated. Finally, based on the demographic composition and environmental conditions of communities within one and three miles of legacy CCR surface impoundments, this final rule will reduce existing disproportionate and adverse effects on economically vulnerable communities, as well as those that currently face environmental burdens. For example, in Illinois the population living within one mile of legacy CCR surface impoundment sites is over three times as likely compared to the State average to have less than a high school education (35.66% compared to 10.10%, see Regulatory Impact Analysis (RIA) exhibit ES.14), and that population already experiences higher than average exposures to particulate matter, ozone, diesel emissions, lifetime air toxics cancer risks, and proximity to traffic, Superfund sites, Risk Management Plan sites, and hazardous waste facilities (see RIA exhibit ES.15). Consistent with the directive in section 4004(a) to ensure that the statutory standard is met at all regulated sites, including the most vulnerable, this final rule will help EPA further ensure that the communities and ecosystems closest to coal facilities are sufficiently protected from harm from groundwater contamination, surface water contamination, fugitive dust, floods and impoundment overflows, and threats to wildlife.

EPA is also establishing requirements to address the risks from currently exempt solid waste management that involves the direct placement of CCR on the land. EPA is extending a subset of the existing requirements in 40 CFR part 257, subpart D to CCR surface impoundments and landfills that closed prior to the effective date of the 2015 CCR Rule, inactive CCR landfills, and other areas where CCR is managed directly on the land. In this action, EPA refers to these as CCR management units, or CCRMU. The final rule expands the CCRMU requirements to a set of active facilities that were not regulated by the 2015 CCR rule because they had ceased disposing of CCR in their on-site disposal units, and they did not have an inactive surface impoundment. Accordingly, this rule applies to all CCRMU at active CCR facilities and inactive facilities with a legacy CCR surface impoundment.

EPA is also finalizing alternative closure provisions to allow a facility to complete the closure by removal in two stages: first, by completing all removal and decontamination procedures; and second, by completing all groundwater remediation in a separate post closure care period.

Finally, EPA is making a number of technical corrections to the existing regulations, such as correcting certain citations and harmonizing definitions.

EPA intends the provisions of the rule to be severable. In the event that any individual provision or part of the rule is invalidated, EPA intends that this would not render the entire rule invalid, and that any individual provisions that can continue to operate will be left in place. For example, EPA intends that the provisions governing each class of facilities—legacy CCR inactive surface impoundments, CCR management units, other active facility units, and regulated CCR landfills containing waste in contact with groundwater—to be independently severable from one another as each set of requirements operates independently from the other.

Likewise, the provisions regulating existing units at active facilities, including those units at non-fossil-fuel-fired facilities generating energy, are severable from the other substantive requirements—each provision may continue operating even if one of the others is invalidated. EPA also intends

Facts demonstrating the consequences from particular activities therefore remain relevant, particularly (although not solely) where the management practices continue to occur. In other words, what matters in this regard are facts that provide information on the reasons that unit leaked, the particular contaminants that were present, the levels of those contaminants, and the nature of any impacts caused by that contamination. None of these facts are affected by whether the damage is ultimately mitigated or remedied. This is entirely consistent with RCRA section 8002(n), which requires EPA to evaluate the ''potential danger, if any, to human health and the environment from the disposal and reuse of such materials'' in addition to ''documented'' damage cases. 42 U.S.C. 6982(n)(3)–(4). Accordingly, the fact that any contamination has subsequently been remediated is not a basis for disregarding a damage case. See 80 FR 21455.

In summary, EPA continues to believe the damage cases provide extremely valuable evidence that is directly relevant to the question of whether and how to regulate CCR. For example, the damage cases provide ''real world'' evidence against which to compare EPA's risk modeling estimates, such as evidence regarding the frequency with which particular constituents leach into groundwater. 80 FR 21326. They also provide direct evidence regarding specific waste management practices at electric utilities, along with the potential consequences of those practices. Accordingly, EPA has sufficient confidence in the veracity of the collected information to rely on it in making decisions in this rule. EPA expects that additional damage cases will be discovered in response to the installation of the groundwater monitoring systems required by the final rule.

a. Examples of CCRMU With Identified SSLs

Under the existing CCR regulations, when a facility determines there is an SSL for one or more Appendix IV constituents and completes a successful ASD showing that a source other than the regulated unit is the cause of the SSL(s), the facility is not required to initiate corrective action for that particular constituent. Through reviewing the ASD posted on facility websites, EPA identified several areas at active facilities where CCR is managed outside of a regulated unit and is identified as a source of one or more Appendix IV SSL(s). The following facilities are examples of situations in which such areas have been identified as the source of an SSL and therefore support EPA's determination that such areas warrant regulation under RCRA section 4004(a).

James H Campbell Power Plant, West Olive, Michigan

The JH Campbell Power Plant, owned and operated by Consumers Energy Company, is located within a mile of Lake Michigan. The facility has five regulated CCR units, including three CCR surface impoundments (Pond A, Bottom Ash Ponds 1–2, and Bottom Ash Pond 3) and two CCR landfills. The ''wet ash ponds area'' is approximately 267 acres and is bounded by perimeter dikes with a system of internal dikes separating the individual ash ponds. In addition to the five regulated CCR units, there are at least seven other unregulated, unlined ''closed'' impoundments [65] that ceased placement of waste prior to October 19, 2015, do not have an engineered cap nor vegetative cap, and have a closure plan that was approved by the State. Based on the groundwater monitoring report reviews, there were SSIs over background at many wells at all units and some had an SSL for arsenic and selenium. At Pond A, which closed with waste in place in 2019, there are SSIs for boron and sulfate, and SSLs were identified for arsenic (13 µg/L [MCL of 10 µg/L]) and selenium [66] (143 µg/L [MCL of 50 µg/L]) for which an assessment of corrective measures was completed, and the selected remedy is source removal and final cover as the primary corrective action. In the 2021 Annual Groundwater Monitoring and Corrective Action Report posted in January 2022, Consumers Energy concluded there was an ASD for Pond A and said, ''Increases in Appendix III constituents (*e.g.* boron) and direct exceedances of the selenium GWPS in JHC–MW–15011, JHC–MW–15010, JHC–MW–15009, and JHC–MW–15008R that have not yet resulted in a statistically significant exceedance suggest a detectable influence from the immediately adjacent, upgradient, closed, pre-existing CCR units on-site. The closed, preexisting units are not regulated under the RCRA CCR Rule, but remedial action is being taken under Consent Agreement WMRPD No. 115–01–2018. A [remedial action plan] for these units was submitted to [Michigan's Department of Environment, Great Lakes, and Energy] on September 30, 2021.'' During the 2021 groundwater monitoring period for Bottom Ash Ponds 1–2, which closed by removal in 2018, SSIs were identified for boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS); also, one SSL was identified for arsenic (38 µg/L [MCL of 10 µg/L]).[67] An assessment of corrective measures has been completed for the CCR unit and the primary selected remedy is source removal and final cover. Consumers Energy also said in the 2022 semiannual progress report that the facility is reevaluating the groundwater ''monitoring system for [Bottom Ash] Ponds 1–2 to more accurately account for the influence from the closed, pre-existing units.''

New Castle Generating Station, Pennsylvania

GenOn Power Midwest LP (GenOn) operates the New Castle Generating Station located in West Pittsburg, Pennsylvania. The New Castle Generating Station has two CCR units subject to the regulations—an impoundment (North Bottom Ash Pond) and a landfill (New Castle Plant Ash Landfill). Each of these CCR units has relevance to this proposal due to other unregulated disposal units located adjacent to the regulated CCR units.

The North Bottom Ash Pond was used for the management of bottom ash until 2016 when the facility transitioned from coal to natural gas. After the transition to natural gas, GenOn initiated closure of the North Bottom Ash Pond by removing all waste from the impoundment. Closure of the impoundment was certified in 2019.[68] Groundwater monitoring associated with the impoundment while the unit was operating detected arsenic at SSL above the GWPS in all downgradient monitoring wells.[69] In accordance with the procedures in the regulations for CCR units in 40 CFR 257.94(e)(2), GenOn determined that an alternative source was responsible for these SSLs of arsenic. Specifically, the ASD found that a 120-acre unlined CCR surface impoundment located immediately adjacent to the North Bottom Ash Pond

[65] These ''closed'' impoundments (Pond B, Pond C, Pond D, Pond F, Pond G (G1 and G2), Pond H, and Pond K) are listed in a figure on page 12 of the 2021 Annual Groundwater Monitoring and Corrective Action Report, JH Campbell Power Plant Pond A, January 2022, Prepared for Consumer's Energy.

[66] JH Campbell Semiannual Progress Report—Selection of Remedy, Ponds 1–2 North and 1–2 South, and Pond A, July 30, 2022. Pages 3–4.

[67] Annual Groundwater Monitoring and Corrective Action Report, JH Campbell Power Plant Ponds 1–2 North and 1–2 South, January 2022, Prepared for Consumers Energy. Page 23.

[68] CCR Compliance, Closure Certification Report, Closure by Removal, New Castle North Bottom Ash Pond. June 2019.

[69] *Id.* At 5.

was responsible for the arsenic concentrations in the downgradient monitoring wells.[70] According to the 2019 Annual Report prepared by GenOn, there were SSLs for arsenic (0.087 mg/L [MCL of 10 µg/L]) in the downgradient monitoring wells.[71] Consequently, because the SSLs of arsenic were attributed to another source (*i.e.,* a former unlined CCR surface impoundment), GenOn concluded it was not required to remediate the arsenic contamination under the Federal CCR regulations.

GenOn also determined that there were SSIs above background levels for multiple analytes at the New Castle Plant Ash Landfill (Ash Landfill), which is the other regulated CCR unit at the New Castle Generating Station. In its most recent annual groundwater monitoring report in 2022, GenOn reported SSIs for boron, calcium, fluoride, sulfate, and total dissolved solids.[72] GenOn determined that an alternative source was responsible for these analyte increases, specifically pointing to an ''underlying historic ash impoundment and other closed stages of the landfill.'' [73] Prior to development of the 60-acre Ash Landfill, CCR was disposed in an impoundment from approximately 1939 to 1978.[74] After the impoundment was dewatered in 1978, dry CCR was disposed in this area in several stages of CCR placement up until the time Ash Landfill began operation. Since 2018, GenOn has attributed SSIs for boron, calcium, fluoride, sulfate, and TDS to this historic disposal of CCR.

Huntington Power Plant, Utah

The Huntington Power Plant in Huntington, Utah is owned and operated by PacifiCorp and has one regulated unit, the Huntington CCR Landfill. While conducting the required groundwater monitoring for the Huntington CCR Landfill, there were SSLs for chromium, cobalt, lithium, molybdenum, selenium, fluoride, and arsenic, so the owner or operator conducted assessment of corrective measures. There is also a former combustion waste landfill called the Old Landfill, which is located northwest of the regulated Huntington CCR Landfill. The ACM report [75] assumes the SSLs are the result of groundwater interactions with both the Huntington CCR Landfill and the Old Landfill. Both landfills have stormwater run-on from the area surrounding the landfill. This run-on is routed around the landfills via diversion ditches and run-off from the landfills itself is collected and retained in a sediment basin north of the Huntington CCR Landfill. The facility is implementing a remedy to address releases only from the regulated CCR Huntington Landfill, but the remedy selection report [76] does not appear to address releases from the Old Landfill.

J.B. Sims, Grand Haven, Michigan

The J.B. Sims Generating Station, owned and operated by Grand Haven Board of Light and Power, is located on Harbor Island, north of Grand Haven, Michigan. Harbor Island is bound to the north, east, and west by the Grand River and to the south by the South Channel, tributaries of Lake Michigan. The facility has two Federally regulated CCR units (Unit 1 & 2 and Unit 3), both of which are inactive, unlined surface impoundments. Unit 1 & 2 is approximately 1.2 acres and includes areas where, prior to October 19, 2015, CCR was placed in unlined impoundments and used as fill in low-lying areas of adjacent wetlands. Unit 3 is approximately 0.5 acres and was built on top of historically placed CCR. The boundary of Unit 1 & 2 was updated in an agreement with EPA and the State in January 2021,[77] to include an area that received CCR prior to 1978. Therefore, the groundwater monitoring network and closure plan are currently being updated to reflect the new boundary and better address contamination from historical CCR across the units.[78] Additionally, in March 2022, the State issued an enforcement notice [79] to J.B. Sims citing inadequate groundwater monitoring and failure to address all areas where CCR were managed (*e.g.,* stored, placed) prior to disposal during the unit's operation. As such, the facility is considering expanding Unit 3's groundwater monitoring network. The units are often partially flooded, and groundwater elevations and flow direction are influenced by precipitation and water levels in the Grand River and the South Channel.

Based on groundwater monitoring report reviews, both units have had SSIs and SSLs since groundwater monitoring was initiated in 2017. During 2021, both Unit 1 & 2 and Unit 3 had SSIs for all Appendix III constituents and SSLs for arsenic (98 µg/L [MCL is 10 µg/L]), chromium (270 µg/L [MCL is 100 µg/L]), cobalt (22 µg/L [GWPS is 6 µg/L], fluoride (13 mg/L [MCL is 4 mg/L]), and lithium (2800 µg/L [site-specific GWPS is 59 µg/L]).[80] In December 2020, J.B. Sims submitted an ASD for Unit 3's 2019 SSLs for chromium, cobalt, fluoride, lead, and lithium, pointing to the historic fill across the island as the source of the SSLs. [81] [82] Furthermore, the Fourth Quarterly 2021 Monitoring Report suggested the continued SSIs and SSLs at Unit 3 were due to historical CCR fill beneath the unit, historical fill outside of Unit 1 & 2, and waste historically placed across the site.[83] However, until the groundwater monitoring networks are finalized, the extent of groundwater contamination and the source of all contamination cannot be determined. The assessment of corrective measures for both units began in February 2019 and is ongoing, pending finalization of the groundwater monitoring networks. Based on groundwater monitoring reports, EPA has found that due to the fluctuations in groundwater elevations in response to precipitation and nearby surface water levels, portions of the facility, including Unit 1 & 2, can be inundated or partially in contact with groundwater.

[70] *Id.*

[71] CCR Compliance, Groundwater Monitoring and Corrective Action Annual Report, New Castle North Ash Pond and Ash Landfill. January 2020.

[72] CCR Compliance, Groundwater Monitoring and Corrective Action Annual Report, New Castle Ash Landfill. December 2022.

[73] *Id.* At 3.

[74] New Castle Plant Ash Landfill—Annual CCR Unit Inspection Report. January 16, 2018.

[75] Corrective Measures Assessment CCR Landfill—Huntington Power Plant Huntington, Utah. May 2019.

[76] Remedy Selection Report CCR Landfill—Huntington Power Plant, Huntington, Utah. August 2020.

[77] The meeting between Grand Haven Board of Light and Power, the State, and EPA during which the new boundaries for Unit 1 & 2 were agreed to is discussed on page 3 (PDF page 10) of the 2021 Annual Groundwater Monitoring & Corrective Action Report by Golder Associates. January 28, 2022.

[78] Letter to Grand Haven Board of Light and Power-Update To The October 14, 2019 J.B. Sims Generating Station Inactive Units ½ Impoundment And Unit 3 Closure Plan—Interim Conditions For Closure. October 22, 2021.

[79] The State of Michigan, Department of Environment, Great Lakes, and Energy (EGLE) issued an enforcement notice via email March 22, 2022, to Grand Haven Board of Light and Power, J.B. Sims.

[80] SSL concentrations can be found in Appendix B (PDF page 512) of the 2021 Groundwater Monitoring & Corrective Action Report prepared by Golder Associates on behalf of Grand Haven.

[81] 2020 Alternate Source Demonstration J.B. Sims Generating Station—Unit 3 Impoundments Submitted to: Grand Haven Board of Light and Power Submitted by Golder Associates Inc. December 28, 2020.

[82] Technical Memorandum to Michigan Department of Environment, Great Lakes, and Energy-Unit 3 Impoundments Alternate Source Demonstration Response Grand Haven Board Of Light And Power—JB Sims Power Generating Station. February 12, 2020.

[83] Memorandum to Michigan Department of Environment, Great Lakes, and Energy- Fourth Quarter 2021 Monitoring Report, Former JB Sims Generating Station, Unit 3 A&B Impoundments—Response to Comments. March 8, 2022.

the proposed regulations would not provide regulated entities fair notice of what the regulations require.

Finally, EPA acknowledges that the reference in the proposal to evaporation ponds, or secondary or tertiary finishing ponds that have not been properly cleaned up as examples of potential CCRMU was a mistake. EPA agrees that these units would generally be expected to contain no more than a *de minimis* amount of CCR.

iv. Exemption for Beneficial Use of CCR

Several commenters stated that the CCRMU definition is too broad and does not account for the beneficial use of CCR. According to these commenters, the proposal to regulate CCRMU effectively revoked or amended the current exemption for beneficial use in § 257.50, and the broad CCRMU definition now requires previously approved beneficial uses to be reexamined for potential regulation. Several of these commenters criticized the agency for failing to address the issue in the proposal, and argued that the Agency lacked the authority to include such beneficial uses, either because neither RCRA section 1008(a)(3) nor section 4004(a) authorize EPA to regulate use or because such regulation would be inconsistent with the 2015 Regulatory Determination. These commenters recommended that the CCRMU definition be revised to exclude any beneficial use of CCR as defined by § 257.53 or as previously approved by State agencies.

By contrast, several commenters request EPA to prohibit the use of coal ash as fill unless full protective measures such as liners, monitoring, and caps are required everywhere it is placed. Commenters claimed that immediate attention to this recommendation will protect the health and environment of millions of U.S. residents by preventing the spread of toxic coal ash pollution.

EPA disagrees that the proposal to regulate CCRMU effectively revoked or amended the current exemption for beneficial use in § 257.50. The proposal merely accurately reflects the existing regulations, which these commenters have misunderstood.

Under the existing regulations, the direct placement of CCR on the land on site of a utility, with nothing to control releases is, by definition, a CCR pile and therefore not beneficial use. The examples of historical CCRMU discussed in the proposal, structural fill and CCR placed below currently regulated CCR units on-site of a utility also clearly fit that definition.

These are the same provisions that have been in place since 2015. The existing definition of a CCR pile is

> Any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. CCR that is beneficially used *off-site* is not a CCR pile.

§ 257.53 (emphasis added). The second sentence expressly limits the beneficial use of CCR to ''off site,'' and thus any non-containerized CCR placed directly on the land on-site of a utility is not beneficial use.

EPA previously explained this in its August 14, 2019, proposal ''Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles'' to revise the definition of a CCR pile with respect to temporary piles. 84 FR 40353. Specifically, EPA proposed to establish a new set of requirements that would apply equally to temporary or ''storage piles'' located on-site and off-site of a utility. As part of the background to that proposal, EPA described the requirements under the existing regulation so that the public could fully understand what it was–and was not [139]—proposing to revise. The proposal reiterated the existing definition of a CCR pile in § 257.53, and explained that this definition closely mirrors the RCRA definition of disposal, which is defined in part as the ''placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.'' See 42 U.S.C. 6903(3). EPA further explained:

> Under this regulation, CCR piles constitute disposal and are consequently subject to all regulatory criteria applicable to CCR landfills. In contrast, activities that meet the definition of a beneficial use are not considered disposal, even if they involve the direct placement on the land of ''non-containerized'' CCR. See §§ 257.50(g) and 257.53 (definitions of CCR landfill and CCR pile); 80 FR 21327–30.
> The current regulation distinguishes piles of CCR on-site (at an electric utility or independent power producer site) from temporary piles of CCR off-site (at a beneficial use site), based on whether CCR from the pile could fairly be considered to be in the process of being beneficially used. See § 257.53 (definition of CCR pile); 80 FR 21356 (April 17, 2015). While the CCR from the pile on-site may someday be beneficially used, it is not currently in the process of being beneficially used . . . If CCR is not containerized, the pile is a CCR pile and subject to the same requirements as a CCR landfill. See Id.
> In contrast, the regulations treat CCR stored off-site at a beneficial use site in a temporary pile to be in the process of being beneficially used (even though a pile is not itself a beneficial use). If the CCR is temporarily placed at a beneficial use site and meets the regulatory definition of a beneficial use, the pile is not a CCR pile and is not subject to disposal requirements.
> . . . .
> In the current definition [of a CCR pile], EPA distinguishes between piles on-site (which were almost always regulated as landfills) and piles off-site, (which, if temporary, were generally considered to be beneficial use, subject only to the four criteria in the definition). The current regulation also distinguishes between on-site piles that are not containerized and those that are containerized. See 80 FR 21356 (April 17, 2017); § 257.53.

84 FR 40365.

Thus, under the 2015 CCR Rule the activities covered under the definition of a CCRMU (*i.e.,* permanent placement of CCR on the land, on-site of a utility, without controlling releases) were defined as disposal rather than beneficial use. In 2019, EPA did not propose to revise or reconsider that. Instead, EPA proposed to extend that existing requirement to permanent piles located off-site of a utility. EPA therefore declines to reconsider the issue here.

In the May 2023 proposed rule EPA expressly stated that it did not intend to reopen or reconsider any issue other than those on which the agency expressly solicited comment.

> In this proposal, EPA is not reconsidering, proposing to reopen, or otherwise soliciting comment on any other provisions of the existing CCR regulations beyond those specifically identified in this proposal. For the reader's convenience, EPA has provided a background description of existing requirements in several places throughout this preamble. In the absence of a specific request for comment and proposed change to the identified provisions, these descriptions do not reopen any of the described provisions.

88 FR 31984. EPA further advised the public that it would ''not respond to comments submitted on any issues other than those specifically identified in this proposal, and such comments will not be considered part of the rulemaking record.'' Id.

Nowhere in the May 2023 proposed rule did EPA solicit comment on or suggest that it was in any way reconsidering the existing definition of

[139] EPA expressly advised the public that it was ''not reconsidering, proposing to reopen, or otherwise soliciting comment on any other provisions of the final CCR rule beyond those specifically identified in this proposal.'' 84 FR 40355.

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 40

HALEY ALDRICH

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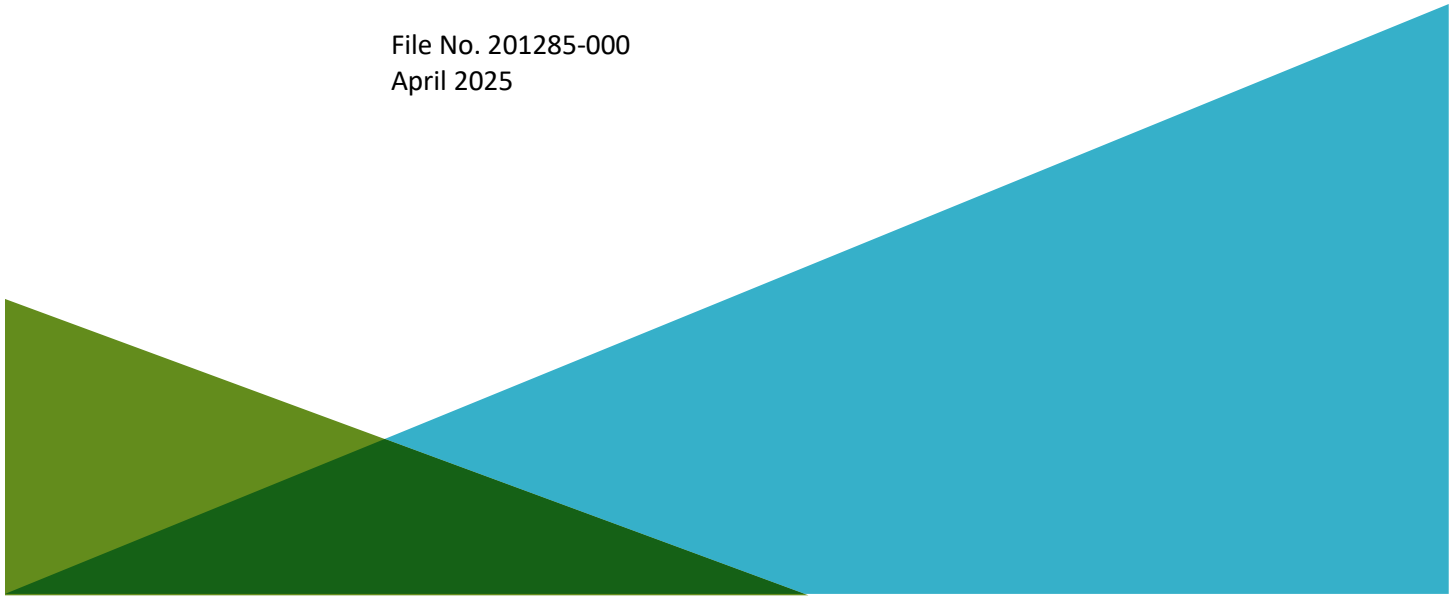
EVALUATION REPORT
SOUTHERN ILLINOIS POWER COMPANY MARION STATION
MARION, WILLIAMSON COUNTY, ILLINOIS

by
Haley & Aldrich, Inc.
Phoenix, Arizona

for
ArentFox Schiff, LLP
233 South Wacker Drive, Suite 7100,
Chicago, IL 60606

File No. 201285-000
April 2025



HALEY & ALDRICH, INC.
6500 Rockside Road
Suite 200
Cleveland, OH 44131
216.739.0555

SIGNATURE PAGE FOR

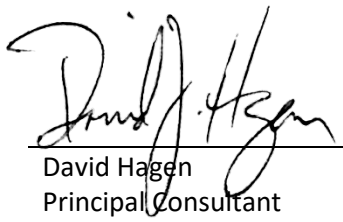
REPORT ON

EVALUATION REPORT
SOUTHERN ILLINOIS POWER COMPANY MARION STATION
MARION, WILLIAMSON COUNTY, ILLINOIS

PREPARED FOR

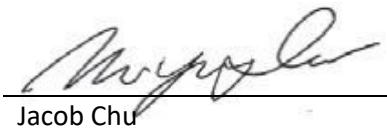
ARENTFOX SCHIFF, LLP
MARION, ILLINOIS

PREPARED BY:



David Hagen
Principal Consultant
Haley & Aldrich, Inc.

REVIEWED BY:



Jacob Chu
Senior Technical Expert
Haley & Aldrich, Inc.

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1. Introduction

1.1 BACKGROUND

Haley & Aldrich, Inc. has prepared this report that documents our evaluation of the recommendation and first set of interrogatories responses by the Illinois Environmental Protection agency ("IEPA" or "Agency") concerning the petition for an adjusted standard from 35 Ill. Admin. Code 845 or in the alternative a finding of inapplicability, by the Southern Illinois Power Cooperative's (SIPC) Marion Generating Station ("Marion Station") in Williamson County, Illinois.

Based on our review and analysis of IEPA's recommendation, we found that IEPA's recommendation was based on conclusions derived from inappropriate reasoning that contained:

- No clear definition of what conditions qualify as *de minimis* amounts of coal combustion residuals (CCR) material,
- Incorrect use of some evidence,
- Speculative estimates of the amount of CCR, and
- Factual arguments that are not logically consistent.

In this report, Section 2 is used to discuss the fundamental flaw of IEPA's method to determine the *de minimis* conditions. Sections 3, 4, 5, 6, and 7 provide our evaluation specific to IEPA's determination on Pond 4, Pond 3, Pond 3A, Pond B-3, and South Fly Ash Pond, respectively. Section 8 describes our combined assessment regarding flaws in IEPA's evaluation of Pond 6, the Replacement Fly Ash Pond, the Initial Fly Ash Pond, and the Fly Ash Holding Extension Area. Section 9 provides our evaluation of IEPA's comments on the current groundwater monitoring system at the Marion Station. Section 10 concludes the report.

2. IEPA Review of *de minimis* Amounts of CCR Material

2.1 IEPA'S CRITERIA TO DETERMINE DE MINIMIS AMOUNTS IS AMBIGUOUS

As described in its Recommendation, in the matter of determining whether a surface impoundment is not regulated under Part 845 because it contains *de minimis* amount of CCR, IEPA solely focused on the criteria based on 415 ILCS 5/3.143, 35 Ill. Adm. Code 845.120, and 40 CFR 257.2, which is:

> "CCR surface impoundment" means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

If a unit meets the criteria above, IEPA considers that, the unit, by design, contains an amount of CCR that does not qualify as "*de minimis".* Therefore, IEPA did not establish a threshold quantity to determine what qualifies as a *de minimis* amount. Further, IEPA's interpretation turns any impoundment, receiving some amount of CCR, no matter how small, into a CCR surface impoundment.

The United States Environmental Protection Agency ("USEPA") also has not set a threshold for *de minimis* CCR surface impoundments, but it has recognized that the de minimis exemption is necessary and has clarified that secondary or tertiary ponds that do not receive "significant amounts of CCR from a preceding impoundment" would not fall within the definition of a regulated CCR surface impoundment. 80 Fed. Reg. at 21.357. The Illinois Pollution Control Board has also recognized the applicability of the *de minimis* exemption consistent with 40 C.F.R. Part 257 and Petitioners' ability to owners and operators to seek variance or adjusted standards as regulatory relief when the disagree with an IEPA determination concerning whether a unit is a CCR surface impoundment. R2020-019, In the Matter of Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed new 35 Ill. Adm. Code 845, Illinois Pollution Control Board's Second Notice Opinion and Order at 14 (Feb. 4, 2021)

3. Evaluation of IEPA's Pond 4 Determination

3.1 IEPA'S POND 4 DETERMINATION

IEPA asserts Pond 4 meets the definition of an inactive CCR surface impoundment primarily based on the following evidence:

I. Pond 4 received ash sluice water (Agency Recommendation, Paragraph 55; Agency Ex. YY).

II. There appears to have been a significant amount of CCR carry over into Pond 4 from other CCR surface impoundments and/or CCR from the other permitted CCR sources, since the formation of deltas of precipitated CCR can be seen in Agency Ex. 3 and Ex. 4. By March 2005, an internal berm, presumably constructed from the bottom ash and other CCR entering Pond 4 is visible. See Agency Ex. 5. (Paragraph 56).

III. NPDES permits issued in 1975, 1977, 1985, 1998, and 2007 all characterize Pond 4 as an ash pond. See Agency Ex. 51-55 (Paragraph 57).

IV. Pond 4 is an inactive CCR surface impoundment and likely contains about 38,387 cubic yards of CCR, which is more than *de minimis.* (Paragraphs 59, 60, and 62 through 68). IEPA determined the following CCR volumes: (1) approximately 5,460 cubic yards of exposed CCR in the exposed delta (Paragraph 65), (2) 5,316 cubic yard of CCR based on the average sediment thickness (1.67 feet) obtained from the bathymetric survey and the area of Pond 4, and (3) the difference between a permitted volume of 89,210 cubic yard, which is approximately 38,377 cubic yards more than the volume reported based on the bathymetric survey results.

3.2 IEPA'S INCORRECT REASONING

IEPA makes the following inaccurate or incorrect assumptions and deductions regarding Pond 4:

- Response to IEPA evidence I above: IEPA failed to recognize that Pond 4 was designed as a multi-purpose pond. Receiving effluent water from Pond 1 and Pond 2 is one of its original design purposes. Pond 1 and Pond 2 were designed to take only ash slurry from the power plant and provide the necessary retention time to settle or precipitate the CCR from the water. (Agency Ex WW and Ex. 50); therefore, Pond 4 did not directly receive ash sluice water. It received water that had been treated by Pond 1 and Pond 2. The role of Pond 4 to receive treated water makes it fit the definition of a secondary finishing pond, which has been recently reaffirmed by USEPA as a unit that *"would generally be expected to contain no more than a de minimis amount of CCR."* Federal Register, Vol. 89, Pages 38949 – 38950 (also explaining "the reference in the proposal to evaporation ponds, or secondary or tertiary finishing ponds that have not been properly cleaned up as examples of potential CCRMU was a mistake.")

- Response to IEPA evidence II above: IEPA speculated a significant amount of CCR carry over into Pond 4 from other CCR surface impoundments or other permitted CCR sources. However, Pond 4 was also permitted to receive yard drainage, coal yard drainage, and boiler blowdown. USEPA has indicated that *"Surface runoff, coal pile runoff, CCR landfill leachate, stormwater and evaporation ponds would not generally be expected to meet the definition of a CCR surface*

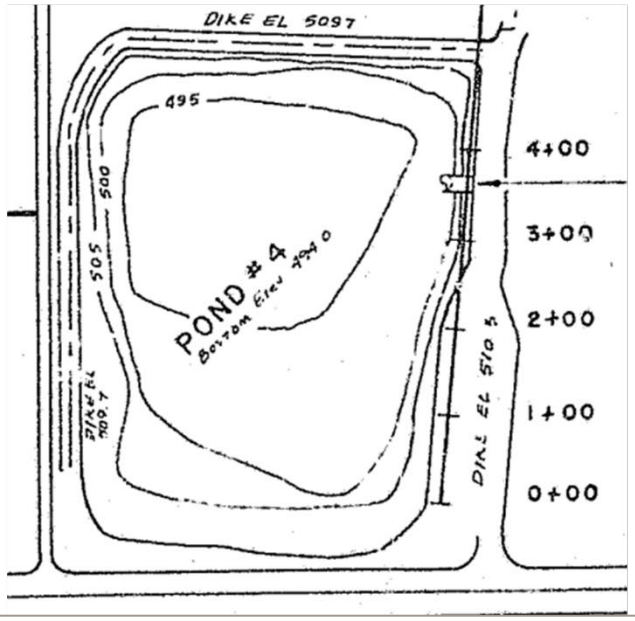
impoundment, because based on their typical design and function, such units are not usually designed primarily to hold an accumulation of CCR and liquid and would not be expected to treat, store, or dispose of CCR." [1] Due to the multi-purposed nature of Pond 4, sediment accumulation due to surface runoff (or surface drainage) collection is expected. The accumulation noted in IEPA's aerials (for example in IEPA Exhibits 3 and 4) are on the south side of Pond 4 and are likely due to coal pile runoff. Therefore, the observation of sediment buildup is not reliable evidence of CCR accumulation.

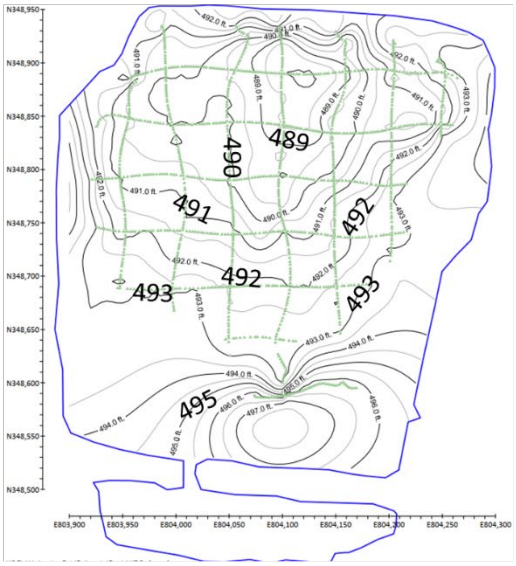
- Response to IEPA evidence III above: There is little doubt that Pond 4 is part of an overall pond management system that includes ash ponds. It is not uncommon for ponds in a management system to be casually referred as an ash pond. However, it is my experience that being called an ash pond in a historical document does not always mean that the unit meets the definition of a CCR surface impoundment.

  Evidence III provided by IEPA relies upon NPDES documents that predate the 2010 cleaning of Pond 4. During an outage in 2010 Pond 4 was cleaned down to the clay, removing plant debris, and any ash and coal fines that might have been collected in the pond. Figure 1 shows the comparison between the Pond 4 bottom elevations depicted in a historical drawing (Agency Ex. CC) and survey by Hanson in 2021 (Haley & Aldrich 2021). Because of the cleaning, Pond 4 bottom elevations in 2021 are noticeably lower than the bottom elevations in 1981.

  Since the cleaning in 2010, any CCR that has entered Pond 4 is de minimis, such as through storm water, or decanted water overflow from Pond 6 (which itself served the purpose of collecting CCR landfill leachate). After Unit 4's shutdown in 2020, Pond 4 was no longer used to treat or manage water from Ponds 1 and 2.

Panel (A): Pond 4 bottom elevations in 1981 document **Panel (B): Pond 4 bottom elevation survey in 2021**





[1] https://www.epa.gov/coalash/frequent-questions-about-definitions-and-implementing-final-rule-regulating-disposal-coal#q7

Figure 1: Comparison of Pond 4 bottom elevations between those shown in the 1981 document and those survey by Hansan in 2021.

- Response to IEPA evidence IV above: The first estimate of CCR volume using the exposed delta area is an incorrect approach to calculate CCR volume for the following reasons.
    - As discussed above, sediment accumulation is expected because Pond 4 receives surface runoff/drainage, including from the coal yard; the composition of sediments is complex and CCR is expected to be only a small fraction, and thus the assumption of all exposed sediment volume is CCR is erroneous. The color of sediment seen in IEPA Ex. 18 is not as dark as would be expected if it were all or even mostly CCR.
    - The use of the exposed delta area to estimate the sedimentation volume is also a flawed approach, since the exposed area can be affected by the pond water level.

  The second CCR volume estimate also falsely assumes that the sediment volume is exclusively composed of CCR. Materials dredged from Pond 4 in 2010 were burned as fuel at the Plant, further highlighting the low CCR content in sediment located in Pond 4.

  The third estimate of CCR volume using the difference between the permitted Pond 4 volume and the volume reported based on the bathymetric survey results infer that the missing volume is exclusively because of CCR accumulation. This inference is logically incorrect. The permitted pond volume was estimated based on the design assumed before the pond construction and the water level assumed for this estimate is unknown. In addition, the pond bottom elevations were uneven due to local bedrock topography in the area, and thus the accuracy of the permitted volume may differ significantly from the actual construction. Therefore, the comparison between the two pond volume estimates is not meaningful and these volume estimates cannot be used as evidence for determination of the de minimis conditions.

  Finally, IEPA's response to Interrogatory 5 indicates that *"the portion or percentage of CCR was not calculated separately from the sediment volume."* However, Pond 4 contains many different types of sediment, including coal yard runoff, indicating the estimated sediment volume cannot be used as the basis to determine the de minimis CCR condition of the unit.

4. Evaluation of IEPA's Pond B-3 Determination

4.1 IEPA'S POND B-3 DETERMINATION

IEPA asserts Pond B-3 meets the definition of an inactive CCR surface impoundment primarily based on the following evidence:

I. Pond B-3 was constructed for disposal and settling of fly ash and sludge from sulfur dioxide scrubbers based on the permit application (Paragraph 71; Agency Ex. 48). While Pond B-3 primarily operated as a secondary impoundment that received discharges from Pond A-1 and, at times, operated as a primary impoundment during Pond A-1 outage (Paragraphs 72 and 73). IEPA cited Fed. Reg. Vol. 80, No. 74 pg. 21357 to support that, even in the case of secondary or tertiary impoundments, when such impoundments receive wet CCR or liquid with significant amounts of CCR from a preceding impoundment (even if they are ultimately dredged from land disposal elsewhere) they are also considered CCR surface impoundments.

II. Deltas shown on historical aerial photos are indications of CCR accumulation (Paragraph 75).

III. Pond B-3 contains more than a de minimis amount of CCR based on the CCR content found in the B-3Aa sample collected from the berm of Pond 3A and the shake test results (Paragraphs 79).

4.2 IEPA'S INCORRECT REASONING

IEPA made the following inaccurate or incorrect assumptions and deductions regarding Pond B-3.

- Response to IEPA evidence I above: While Pond B-3 was originally proposed to be a fly ash disposal pond, the primary operations of Pond B-3 were to accept decanted effluent from the Fly Ash Pond A-1, as depicted in Figure 2. At times, Pond B-3 might also have received fly ash during a Pond A-1 outage (anticipated to have occurred only 3-4 times total historically during 2 week outages while the plant was operating at reduced capacity). In addition, the amount of CCR collected in Pond B-3 during Pond A-1 outages was likely a relatively small amount of CCR that qualifies the de minimis

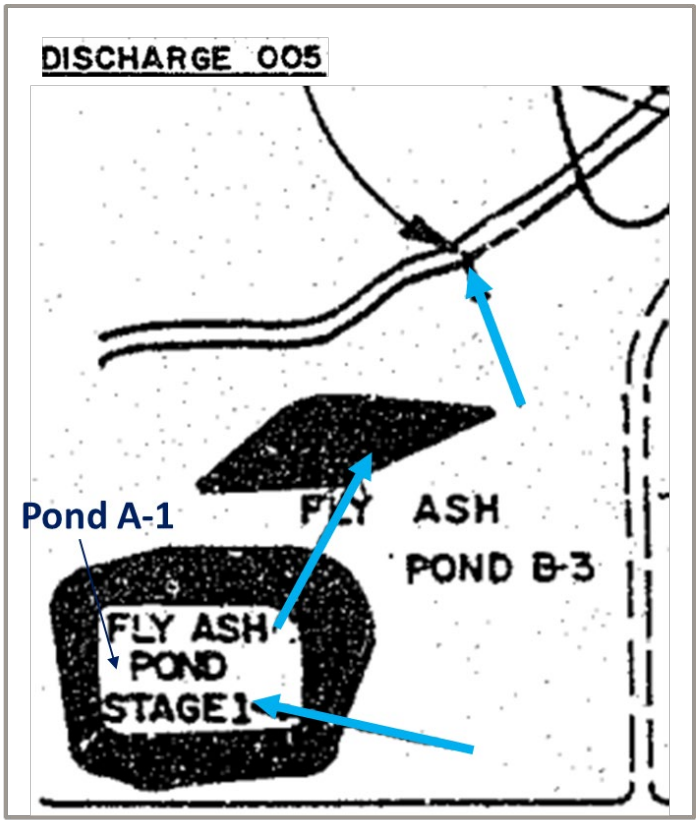


Figure 2: Flow diagram for Pond A-1, Pond B-3, and outfall 005 in a 1933 document (Agency Ex. AA)

condition. Evidence suggests Pond B-3 did not receive a significant quantity of CCR historically.

- Response to IEPA evidence II above: Based on the deltas seen from aerial photos, IEPA speculated that there was a significant amount of CCR carry over into Pond B-3 from Pond A-1. However, the exposed pond bottom areas or deltas seen in aerial photos are likely the result from variable water levels in Pond B-3. When less water is present in Pond B-3, it is expected that the wetted portion of the pond area would be smaller. The exposed areas or deltas in aerial photos may just reflect the pond bottom topography and cannot be used as positive evidence of CCR accumulation in Pond B-3.

  Additionally, it is worth noting that Pond B-3 also received coal pile runoff until 2002. Pond B-3 ceased operation at the same time as Pond A-1 in 2003. After 2003, Pond B-3 continued to receive stormwater. Sediments in stormwater and coal pile runoff would be expected to contribute non-CCR related sediment accumulation in Pond B-3 over time.

- Response to IEPA evidence III above: IEPA references samples B-3a and B-3b as evidence regarding CCR content in Pond B-3 determination (paragraph 79). However, samples B-3a and B-3b are samples collected from Pond 3, not from Pond B-3. Therefore, consideration of samples B-3a and B-3b to make a determination regarding Pond B-3 is inappropriate. The shake test samples from the berm of Pond B-3 are samples B-B3a and B-B3b. Both samples show low concentrations of sulfate (no more than 15 mg/L) and calcium (less than 0.7 mg/L), indicating there is likely little to no CCR present.

  IEPA states that SIPC declined to collect sample B-3c (Paragraph B-3c). This is an incorrect statement. SIPC planned to collect a sample at the proposed boring B-B3c location, but the location was inaccessible due to steep slopes and the presence of ponded water, as explained to IEPA through the technical memo by Haley & Aldrich (2021) included as SIPC Exhibit 29.

5. Evaluation of IEPA's Pond 3/3A Determination

5.1 IEPA'S POND 3/3A DETERMINATION

IEPA determined that Pond 3A meets the definition of an inactive CCR surface impoundment primarily based on the following evidence:

I. Aerial photos show that Pond 3A is a man-made, bermed area, designed to hold an accumulation of CCR and liquids and store an accumulation of CCR (Paragraph 45).

II. Pond 3A contains more than a de minimis amount of CCR based on (1) the berm samples for Pond 3A showing 90% and 91% fly ash from the berm area (which has a volume of at least 6,800 cubic yard), (2) approximately 4,765 cubic yards of CCR in the Pond 3A sediment, (3) the presence of 87% CCR in one pond sediment sample, and (4) the difference (5,684 cubic yards) between the pond volume estimated in a 1997 underground utility diagram (Figure 3) and the pond volume estimated using the bathymetric survey in 2021 (Paragraphs 49).

IEPA determined that Pond 3 meets the definition of an existing CCR surface impoundment primarily based on the following evidence:

III. The permit information (Paragraphs 24 - 27) indicates that Pond 3 was permitted to be an ash pond to receive both slag and fly ash directly sluiced to it and was also designed to supplement Ponds 1 and 2 (Agency Ex. OO). Pond 3 also received runoff from the ash storage area (Agency Ex. WW). Pond 3 was later permitted to receive water (treated by Pond 1 and Pond 2) from Pond 4 in case of an emergency and collects runoff from ash storage piles (Agency Ex. YY). By 1985, Pond 3 was described as a final settling pond receiving overflow from three on-site fly ash ponds and a scrubber sludge storage area, slag storage pile runoff and scrubber sludge storage area (Agency Ex. XX).

IV. Aerial photos in 1998, 2006, and 2007 show significant accumulation of CCR along the west side of Pond 3. By 2009, an internal berm had been constructed along the west side of Pond 3 (Paragraphs 27 and 28).

V. Pond 3 contains more than a de minimis amount of CCR based on (1) two sediment samples analyzed for CCR content from inside Pond 3 reported to be 93% and 96% CCR (Paragraph 35), (2) one berm sample reported to be 23% fly ash (Paragraph 36), (3) estimated CCR amounts, including approximately 4763 cubic yards in pond sediments, 16,000 cubic yards in the internal berm, and 18,327 cubic yards of unaccounted difference between the volume estimated by the bathymetric survey and the permitted volume (Paragraphs 35-39).

5.2 IEPA'S INCORRECT REASONING

IEPA made the following inaccurate or incorrect assumptions and deductions to reach their determinations regarding Pond 3/3A.

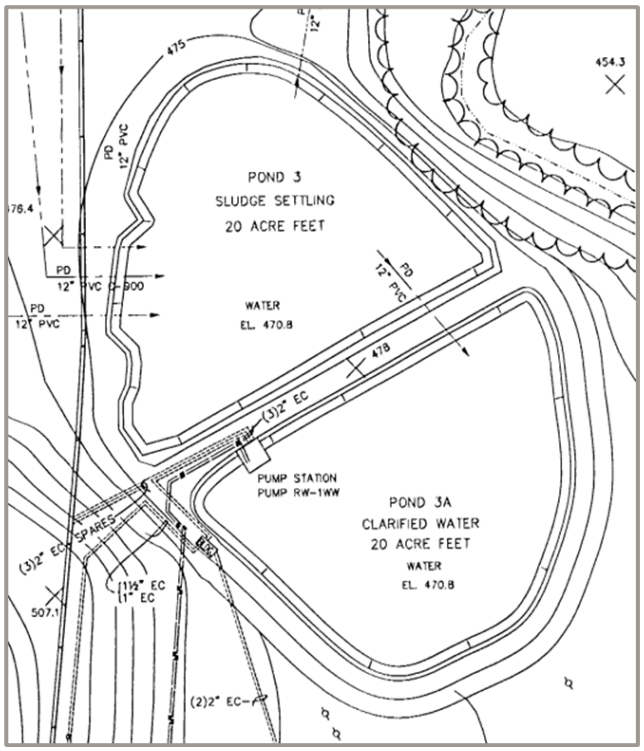


Figure 3: Pond 3A pipelines connection shown in a 1997 underground utilities drawing (Agency Ex. DD).

- Response to IEPA evidence I above: The aerial photos shown by IEPA only indicate that water has been present in Pond 3A since its construction. IEPA did not present evidence of historical documents that Pond 3A was designed to hold an accumulation of CCR and liquids. In the 1997 underground utilities drawing for the facility, Pond 3A was designated as a clarified water pond, not a settling pond as claimed by IEPA (Figure 3). Because the purpose of Pond 3A was to store clarified water, it was not designed to hold an accumulation of CCR and liquids and store an accumulation of CCR. In addition, a clarified water pond is much like a secondary or tertiary finishing pond, which is generally expected to contain no more than a *de minimis* amount of CCR, as indicated by USEPA (see Section 2.2).

- Response to IEPA evidence II above: While Pond 3A contains fly ash in the berm structure, it does not make the pond a CCR impoundment because Pond 3A was not designed to hold an accumulation of CCR and water. The word accumulation, denotes an increase in mass or volume over time. The content of CCR in the berm structure is not a result of CCR accumulation and the berm does not exist under a hydraulic head. In addition, the pond bottom sediment samples show the fly ash content of 1%, substantially different from the fly ash content of the berm samples (approximately 90%), indicating that the composition of pond bottom sediments is very different from the berm soil.

  IEPA also incorrectly used the pond sample data to identify that the pond sediment sample at the thinnest sediment accumulation location is reported to be 87% CCR. In fact, the total content of fly ash and bottom ash for this sample is only 9%. IEPA also incorrectly claims that their estimated volume of pond sediment (4,756 cubic yard) is all CCR, which is contradictory of the low contents of fly ash and bottom ash (< 10%) found in the pond sediment samples.

  Finally, IEPA's claim that the unaccounted sediment volume of 5,648 cubic yards between 1997 and 2021 estimates is all CCR is technically unfounded. The difference (5,684 cubic yards) between the pond volume estimated in a 1997 underground utility diagram (Figure 3) and the pond volume estimated using the bathymetric survey in 2021 is likely the result of using a different surface water elevation to estimate the pond volume. For the same reasons discussed

above, there is no justification or support to conclude more than a small portion of any sediment in the pond is CCR.

- Response to IEPA evidence III & IV above: IEPA assumes permitted uses were actual uses, which is not always the case. In practice, Pond 3 received runoff not only from an ash storage area, slag storage pile runoff, and a scrubber sludge storage area but also from storm water runoff historically. The accumulation of sediment buildup due to historical pond operations included the buildup of non-CCR solid input to the pond. Though the aerial photos show some deposition/buildup, it is incorrect to assume that all of this deposition is CCR material.

- Response to IEPA evidence V above: IEPA incorrectly interpreted the pond sediment and berm soil sample results using the polarized light microscopy (PLM). IEPA indicated that the pond sediment samples contain 93% and 96% CCR by assuming that only the fraction identified for coal is not CCR. IEPA appears to incorrectly assume "Other" category identified in the PLM test consists of CCR. In fact, the category of "Other" is a generalized category that can include constituent classifications such as: Quartz, Carbonates, Vermiculite, Perlite, isotropic/glass, organics, and opaque particles, as indicated in Appendix A. The positive fractions of identifiable CCR types (fly ash, bottom ash, and slag) for the pond bottom samples are only 23% and 34%.

  IEPA also incorrectly assumed that the entirety of its estimated pond sediment volume and berm volume consists of CCR. It is worth noting that IEPA's response to Interrogatory 5 indicates that "the portion or percentage of CCR was not calculated separately from the sediment volume," indicating the estimated IEPA's sediment volume does not represent the volume of CCR cannot be used as the basis to determine the de minimis condition.

  Finally, IEPA incorrectly assumes the existence of an "unaccounted" volume of 18,327 cubic yards of sediment in Pond 3, based on the difference between the volume estimated by the bathymetric survey (34,673 cubic yards) and the permitted volume (53,000 cubic yards) for the pond. IEPA did not and cannot know whether the permitted volume accurately reflects reality. In fact, historical documentation demonstrates that Pond 3 volume was considered to be 20 acre-feet (Figure 3) in size, which is 32,267 cubic yards, similar to the volume estimated by the bathometric survey.

6. Evaluation of IEPA's South Fly Ash Pond Determination

6.1 IEPA'S SOUTH FLY ASH POND DETERMINATION

IEPA made several claims regarding characterizations of the South Fly Ash Pond (SFAP) based upon the following evidence:

I. The construction permit indicates that the SFAP was permitted to be a fly ash settling pond (Paragraph 83).

II. Aerial photos from 2017 to 2021 demonstrate the SFAP meets the definition of an existing CCR surface impoundment (Agency Ex. 15-18). CCR formed a delta near the inlet from Emery Pond a CCR surface impoundment. Since these discharges continued until Fall 2020, the Agency believes this represents placement of CCR in the SFAP after October 19, 2015. (Paragraph 87).

III. Though the SIPC Pond Investigation report was supposed to include samples from this area and the southern berm of the SFAP (see Pet. Ex. 29, Figure 3 at 6), no explanation is provided as to why these samples were not evaluated for their component CCR content along with selected other berm samples. See Pet. Ex. 29 Table 8 at 15. What can be seen in Agency Ex. 9, is that the material in the berm being constructed in the SFAP is similar in color to the CCR material that was being disposed of wet and disposed of dry in Pond 6, the Initial Fly Ash Pond ("IFAP"), the Replacement Fly Ash Pond ("RFAP") and the Fly Ash Extension ("FAE") across the highway to the north. Given the Petitioner's economic concerns, Pet. at 50, it would be reasonable for SIPC to use CCR as fill material to expand the surface storage pad into the permitted area of the SFAP. None-the-less, use of CCR as fill material in this location is storage of CCR within an impoundment. Therefore, the Agency concludes there are approximately 79,030 cubic yards of CCR in total stored in the SFAP. (Paragraph 91).

IV. The pond sediment samples demonstrate that CCR is directly below the water in the SFAP, therefore, because of the historic use of this pond for treatment of water containing CCR, the volume beneath the surveyed CCR in the SFAP is most likely filled with CCR because the bottom of the new pond would have filled first. A volume of 79,702 cubic yards is not accounted for by the bathometric survey when compared with the permitted volume of 188,760 cubic yards. The estimated volume of 79,030 cubic yards based on the survey and the Agency's observations indicate there are approximately 158,730 cubic yards of CCR in the SFAP.

6.2 IEPA'S INCORRECT REASONING

IEPA makes the following inaccurate or incorrect assumptions and deductions regarding the SFAP.

- Response to IEPA evidence II above: Aerial photos in 2017 and 2018 (per Agency Ex 15 & 16) do not clearly establish the development of a delta as shown in the 2021 aerial photo (Agency Ex 18). Additionally, year-to-year water level variance in the pond at the time of aerial photography can mimic or exaggerate the development of a delta. Aerial photography of the SFAP in 2009 (Agency Ex 9) also appears to show a delta that is larger than the delta in Agency Exhibit 17

(2020), indicating that discharge into the pond after October 19, 2015 did not result in observable effects to the delta size.

- Response to IEPA evidence III above: IEPA's reliance on solely the color to soil to determine CCR content is speculative. Field boring logs at many other areas within the site indicate black soils and/or presence of recognizable CCR solids when encountered (Haley & Aldrich 2021). Boring logs associated with SFAP berm do not indicate the presence of fly ash in this manner. Sample results B-SFAb and B-SFAa both indicate that sulfate and boron concentrations obtained from shake tests were low, therefore PLM analysis was not performed at this location. Additionally, considering the entire volume of fill to be CCR is speculative, unfounded, and not supported by any evidence.

- Response to IEPA evidence IV above: These IEPA volume estimates are highly uncertain. Two pond volume estimates, 109,057 cubic yards and 195,400 cubic yards, were obtained using the bathymetric survey results and two different water level assumptions, as reported by Haley & Aldrich (2021) to IEPA. The higher estimate of 195,400 cubic yards is very similar to the permitted volume of 188,760 cubic yards. Given the changes in pond water level and geomorphology around the area of the berm over time, the unaccounted pond volume claimed by IEPA is incorrect. In addition, the assumption that the entirety of the sediment is CCR is incorrect and leads to an overestimation of the CCR volume in the pond given evidence that CCR makes up only a portion of the sediment. (Haley & Aldrich 2021). Finally, a portion of the sediment the Agency has included in its calculation appears to incorrectly include a coal pile located adjacent to the unit,

7. IEPA's Determination Flaws for Pond 6, Replacement Fly Ash Pond, Initial Fly Ash Pond

Pond 6: IEPA claimed that the reported sediment samples collected from Pond 6 (only 2 of 3 collected samples were reported) indicate the samples are almost 100% based on CCR Pet. Ex. 29, Table 7 at 14. IEPA appears to have incorrectly interpreted the pond sediment and berm soil sample results using the polarized light microscopy (PLM) discussed in SIPC Ex. 29. IEPA appears to have assumed that only the fraction of sediment identified as coal is not CCR. In fact, the category of "Other" is also not CCR. The positive fractions of identifiable CCR types (fly ash, bottom ash, and slag) using the PLM for the bottom sediment samples collected in Pond 6 are 30% and 53%. Thus, the claim that almost 100% of the sediment in samples for Pond 6 is CCR is incorrect.

Table 7: Summary of CCR material and coal fractions in Pond sediment samples.

Pond Name	Sample Name	Fly Ash	Bottom Ash	Slag	Slag + Fly Ash + Bottom Ash	Coal	Other	Total
Pond 3A	S-3An	1%	8%	11%	20%	13%	67%	100%
	S-3Ax	1%	6%	27%	34%	48%	18%	100%
Pond 3	S-3n	17%	5%	1%	23%	7%	70%	100%
	S-3x	22%	7%	5%	34%	4%	62%	100%
Pond S-6	S-S6n	27%	3%	0%	30%	2%	68%	100%
	S-S6x	32%	10%	11%	53%	0%	47%	100%
Pond 4	S-4n	1%	1%	23%	25%	23%	52%	100%
	S-4x	13%	19%	32%	64%	0%	36%	100%
	S-4gp	8%	22%	38%	68%	0%	32%	100%
	S-4gs	10%	16%	32%	58%	1%	41%	100%
South Fly Ash Pond	S-SFAn	18%	26%	20%	64%	2%	34%	100%
	S-SFAx	11%	4%	13%	28%	5%	67%	100%
	S-SFAgn	2%	6%	2%	10%	6%	84%	100%
	S-SFAgx	9%	32%	17%	58%	1%	41%	100%

Note: Table adapted from RJ Lee Group (Attachment D).

Figure 4 – Table 7 cited in Agency Paragraph 108. Pond 6 CCR content is highlighted.

IEPA also appears to conflate Pond 6 with the Former CCR Landfill located to the South of Pond 6. However, Pond 6 was located to the east, north and west sides of the Former CCR Landfill to collect runoff. Having a runoff collection pond for a landfill is consistent with good waste management practices. Pond 6 is necessarily located below the waste in the Former CCR Landfill so that runoff may be collected and controlled. Additionally, it appears that historically a Pond 6 was dredged for water retention to provide better capacity for hydraulic control of the runoff.

Figure 5 – Potential location of insinuated delta within Agency Exhibit 9

Replacement Fly Ash Pond (RFAP): IEPA used an aerial photo from 2009 (Agency Ex. 9) to attempt to show run-off from the area of the RFAP in the western most impoundment being redeposited as a delta in Pond 6 and to attempt to show that CCR was being managed in conjunction with water. The Agency did not clearly outline the delta's location in Exhibit 9. We infer the location of this delta as depicted in Figure 5, based on the Agency's statement in its Recommendation. The location of this "delta" suggests that if run-off was the cause, the source would likely be the former landfill and not the RFAP and the cited delta can be explained by an unstable slope and/or partial slope collapse. Thus, sediment accumulation due to CCR transport from the RFAP to the area of Pond 6 cannot be positively supported by the aerial photo and it is technically unsound to make that assumption from this aerial photo.

Initial Fly Ash Pond (IFAP): IEPA suggests there is a continued presence of CCR and water at the IFAP. However, aerials from the 1990s show the area to be clear of any water. Figure 6 shows the approximate bottom and top elevations for the IFAP. By 2007, data demonstrates a significant elevation gain above the top of the IFAP compared 1977, supporting closure of the unit and suggesting subsequent ponding on top of the unit in the 2000s was unrelated to CCR management in the IFAP (Figure 7).

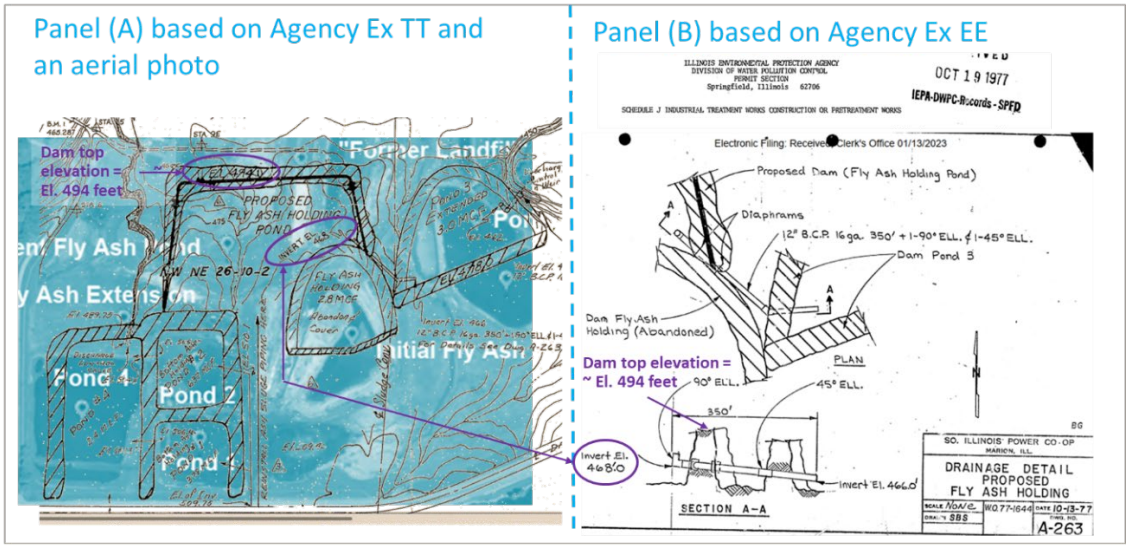


Figure 6 – Approximate bottom and top elevations of the Initial Fly Ash Pond in historical documents; Panel (A) shows the approximate top elevation of the dam (El. 494 feet) and the approximate bottom elevation inferred by the invert elevation (El. 468 feet); Panel (B) provides a cross-section view.

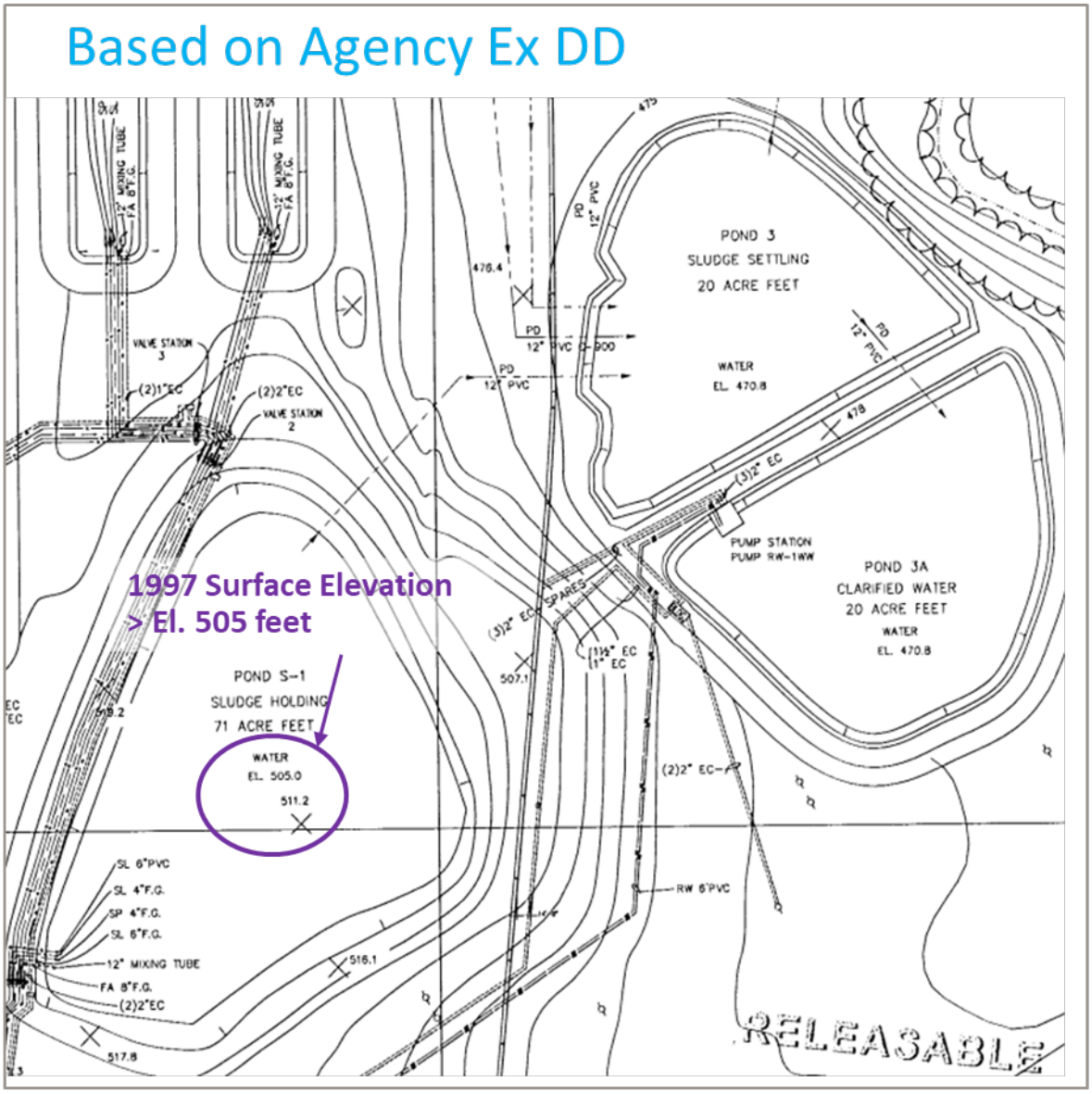


Figure 7 – Approximate surface elevations in the former Initial Fly Ash Area in 1997.

HALEY ALDRICH

8. IEPA's Comments on the Current Groundwater Monitoring System

IEPA expressed the concerns and observations regarding the current groundwater monitoring system. Under the assumption that shallow groundwater flow mimics the natural topography, IEPA also provides several observations about whether each of the current monitoring wells can adequately monitor the CCR impacts on groundwater quality. These concerns and observations were reviewed and evaluated; relevant information and rationales to address IEPA's opinions on the current groundwater monitoring system are provided below, as shown in *italic* text.

I. IEPA expressed the following opinion about the current monitoring system: "… the Agency does not believe the Petitioner has an adequate groundwater monitoring system. The Petitioner offers as evidence bivariate analysis of sulfate and calcium versus the partial shake test analyses for sulfate Pet. Ex. 29 at 20, to prove that the impoundments on-site do not pose an environmental risk. The conclusion appears to be that the sulfate in the shake tests does originate from the sediment. The Petitioner then points to low concentrations of sulfate in groundwater monitoring data as evidence that the numerous CCR surface impoundments are not impacting groundwater. Pet. Ex. 29 at 21. What the Petitioner fails to provide is any evidence that the listed groundwater monitoring wells are constructed in locations that would intercept leachate originating from the CCR surface impoundment. No potentiometric surface map was provided demonstrating that any of the wells are downgradient from any of the CCR surface impoundments. Petitioner's Ex. 29 provides no well logs that support the premise that the monitoring wells are properly constructed to intercept releases from the CCR surface impoundments."

   First, IEPA misunderstands the conclusion of the shake test using pond sediments, saying "the sulfate in the shake tests does not originate from the sediment." What the bivariate plots reveal is that high total dissolved solids observed in some shake test using pond sediments resulted from high calcium and sulfate concentrations in those samples. The main conclusion of the shake test is that "the sulfate concentrations observed in the shake test results for Pond 3, Pond S-6, and the South Fly Ash Pond do not translate to concentrations of sulfate and TDS in groundwater above Part 620 Class I standards." [2]

   Additionally, the current groundwater monitoring system does provide useful information regarding leachate originating from the impoundments at issue in this matter. Because the Marion Station has several water conveyance features at the site and is also close to other surface water bodies, such as Little Saline Creek and Lake of Egypt, the interpretation of the groundwater flow field is likely subject to significant uncertainty near individual water conveyance features. As described below, two monitoring wells of the current groundwater monitoring system have been designated as background wells. Other monitoring wells in the system have observed a higher boron and/or sulfate concentrations in comparison with the levels observed at the background or side-gradient monitoring wells, and some other wells have helped define the lateral extent of CCR-impacted groundwater. Therefore, while the current

[2] Illinois Environmental Protection Agency, 2024. Illinois Administrative Code. TITLE 35. Environmental Protection. Part 620. Groundwater Quality. Updated March 27, 2024.

monitoring well network can be enhanced for future monitoring, it has provided useful historical data to assess the general extent of CCR impacted groundwater.

The well depths of the current groundwater monitoring wells range from 12 feet to 25 feet below ground surface and the screen interval are from 10 feet above the well bottom to the well bottom. The well construction logs are provided in Appendix B.

II. IEPA observed that the SFAP was constructed near the upper end of a southwest to northeast trending natural valley that was reshaped, with a portion of the eastern SFAP berm cutting the valley perpendicularly. Monitoring wells C1 and C2 are located approximately on opposite sides of the natural valley where groundwater flow would trend into the valley not directly east towards those wells.

The rationale for the location of monitoring wells C1 and C2 is shown in Figure 8. The SFAP footprint is superimposed on the natural topography map by the USGS. The location of C1 is right in the natural valley and C2 is on the edge of the valley. The monitoring results of C1 and C2 also consistently shows boron and sulfate concentrations higher than the concentrations observed at the background wells, suggesting they are downgradient.

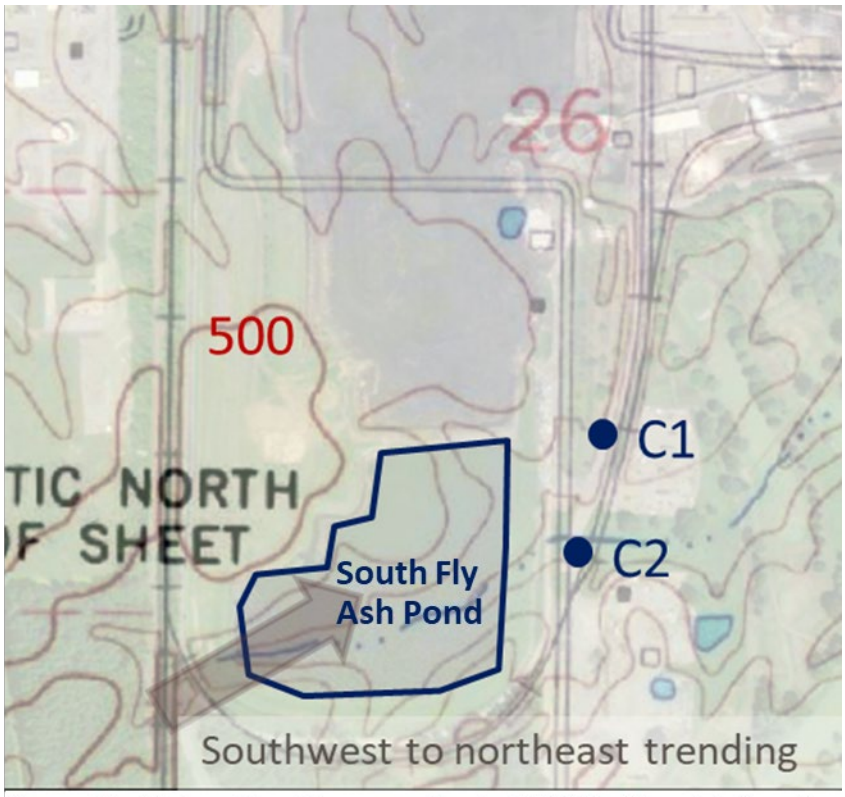


Figure 8 – Natural land topography by USGS in the vicinity of the South Fly Ash Pond.

III. IEPA observed that the monitoring well C3 is up gradient of the SFAP and the monitoring well S1 is clearly on the opposite side of Little Saline Creek, which likely serves as a hydrologic divide for

shallow groundwater. Therefore, S1 is not down gradient of any of the CCR surface impoundments.

The rationale for the locations of wells C3 and S1 is that they serve as background wells.

IV. Because of the map scale, it is not possible to tell which side of Little Saline Creek monitoring well S2 is located. Even if it is south of the creek, the lack of construction information puts its ability to detect releases in question.

The location of well S2 is south of the creek and downgradient of Pond 6. The historical concentration data obtained from S2 consistently shows higher boron and sulfate concentrations have been observed at S2, indicating that this well is monitoring downgradient groundwater. The S2 well construction diagram shows that it is a shallow groundwater well with a screen interval from 16 feet below ground surface (bgs) to 26 feet bgs.

V. Monitoring well S3 may be somewhat down gradient from Pond 6, but since the arrow pointing to the location, does not match the symbol location, S3 could be considerably side gradient and there is no construction information provided.

Well S3 is located at the symbol location and is a shallow monitoring well. S3 is relatively downgradient and side gradient of the sludge and historical ash storage areas. If the groundwater field has a more eastward component, the location of S3 may observe downgradient groundwater. At times, the boron concentrations observed at S3 are higher than those at the background wells.

VI. Monitoring well S5 is upgradient of all of the CCR surface impoundments.

Well S5 is upgradient of the historical fly ash storage area and may potentially hydraulically downgradient of the former Emery Pond. The groundwater quality at S5 generally has a very low boron concentration and a higher than the background sulfate concentration.

VII. Finally, monitoring well S6 is up gradient of Pond B-3 and at best cross gradient from Pond 4.

Well S6 is side gradient of Pond 4 and downgradient of the coal pile and SFAP. The groundwater quality observed at this well is comparable with the quality of background groundwater.

Thus, while the current monitoring well network can be enhanced for future monitoring, its current network has provided useful historical data to assess the general extent of CCR impacted groundwater.

References

1. Haley & Aldrich, 2021. Pond Investigation Report of Certain Ponds at Southern Illinois Power Company's ("SIPC") Marion Station ("Marion"), Technical Memorandum. 1 September (SIPC Ex. 29).

2. Illinois Environmental Protection Agency, 2023. Petition of Southern Illinois Power Cooperative for an Adjusted Standard from 35 Ill. ADA. CODE 845 Or, in the Alternative a Finding of Inapplicability, AS 2021-006 (Adjusted Standard), RECOMMENDATION. January 13.

3. Illinois Environmental Protection Agency, 2023. Petition of Southern Illinois Power Cooperative for an Adjusted Standard from 35 Ill. ADA. CODE 845 Or, in the Alternative a Finding of Inapplicability, AS 2021-006 (Adjusted Standard), RESPONSES to PETITIONER SOUTHERN ILLINOIS POWER COOPERATIVE'S FIRST SET OF INTERROGATORIESRECOMMENDATION. May 19.

4. Illinois Environmental Protection Agency, 2025. Petition of Southern Illinois Power Cooperative for an Adjusted Standard from 35 Ill. ADA. CODE 845 Or, in the Alternative a Finding of Inapplicability, AS 2021-006 (Adjusted Standard), AMENDED RECOMMENDATION, February 3.

5. Illinois Environmental Protection Agency, 2024. Illinois Administrative Code. TITLE 35. Environmental Protection. Part 620. Groundwater Quality. Updated March 27, 2024.

FIGURES

APPENDIX A
Clarification of the “Other” Category listed in RJLG Reports

RJ Lee Group

April 4, 2025

David Hagen
Haley & Aldrich, Inc.
70 Blanchard Rd, Ste 204
Burlington, MA 01803

Re: Clarification of the "Other" Category listed in RJLG PLM Reports

Dear Mr. Hagen,

At the request of Bina Joshi, at the Law Firm ArentFox Schiff LLP, I have provided an explanation of the category identified as "Other" in the polarized light microscopy (PLM) reports previously generated in 2021 regarding the "Evaluation of Granular Samples for Coal Combustion By-Product Content." This category is a variable category that included constituents that were not of particular interest to the investigation in process but were necessary to provide stereological quantification of subject component populations. In these cases, the Other category generally included constituent classifications such as: Quartz, Carbonates, Vermiculite, Perlite, isotropic/glass, organics, and opaque particles.

This information is submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which this information is used or interpreted.

Should you have any questions or feel that I may be of further assistance, please do not hesitate to contact me.

Sincerely,

Keith E. Wagner
Principal Investigator/Senior Materials Scientist

APPENDIX B
Monitoring Well Construction Information

Holcomb Foundation Engineering Co., Inc.

SOILS • BITUMINOUS • CONCRETE • ENGINEERING AND TESTING

393 Wood Road
Carbondale, IL 62901

PHONE 618-529-5262
TOLL FREE 800-333-1740
FAX 618-457-8991

February 19, 2010

Southern Illinois Power Cooperative
11543 Lake of Egypt
Marion, Illinois 62959

Attention: Mr. Jason McLaurin

Re: Monitoring Well Installations and Abandonment
Southern Illinois Power Cooperative
Marion, Illinois
HFE File H-10037

Dear Sir:

On February 16, 2010, we abandoned one ground water monitoring well, installed two wells at this site. We also cut the existing metal covers off of seven wells, and installed J-plugs on the wells to seal the pipe. Enclosed are the Boring Logs, Well Completion Reports, and Water Well Sealing Form. We have submitted one copy of the Water Well Sealing Form to the Williamson County Health Department per Illinois Well Code.

If you should have any questions, or if we can be of further assistance, please feel free to contact us at your convenience.

Sincerely,

HOLCOMB FOUNDATION ENGINEERING CO.

_____
Timothy J. Holcomb, P.E.

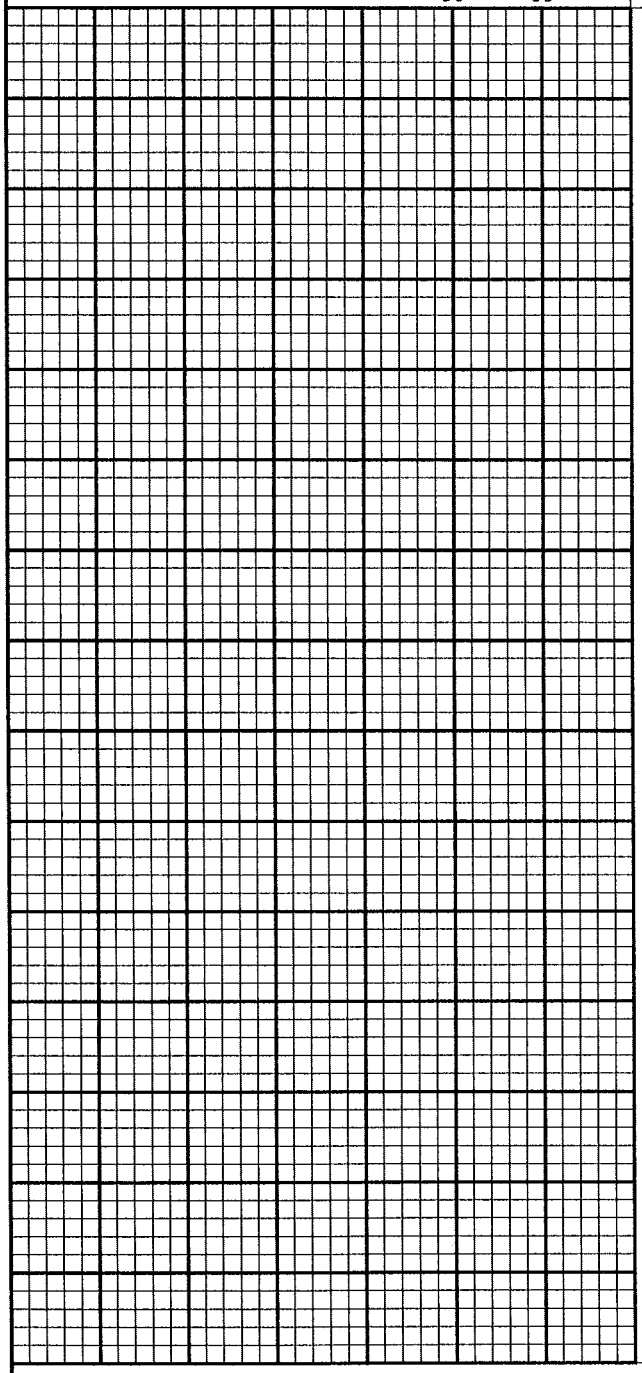
Holcomb Foundation Engineering Co.
PO Box 88 Carbondale, Illinois

LOG of BORING C1

Unconfined Compressive Strength (Tons/Sq. Ft.)
1 2 3 4 5 6

Water Content (%)

Standard N Penetration, Blows/Ft.
10 20 30 40 50 60



Depth in Feet	Sample No.	Type Sample	Sample Distance	Description of Material
				Surface Elevation
				3" Topsoil
				Brown Sandy CLAY (CL)
5		au		
10				
				Brown SANDSTONE
15				End of Boring @ −15.0'
20				
25				
30				
35				

Ground Water Data
No Ground Water Encountered During Drilling.

Project: **SIPC Monitoring Well Installation**
Marion, Illinois

Date of Boring
February 16, 2010

Client: **Southern Illinois Power Cooperative Plant**
Marion, Illinois

Project No.
H−10037

Holcomb Foundation Engineering Company — **Monitoring Well Completion Report**

Site # H-10037 County Jackson Well # C1

Site Name Southern Illinois Power Cooperative Grid Coordinate Northing _____ Easting _____

Drilling Contractor Holcomb Foundation Engineering Date Drilled Start: 2/16/2010

Driller Dan Russell Geologist Tim Holcomb Date Completed: 2/16/2010

Drilling Method Hollow Stem Augers

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Bentonite Chips

Amount of Cement: # of bags _____ lbs. per bag _____

Amount of bentonite: # of bags _____ lbs. per bag _____

Type of Bentonite Seal (Granular, Pellet): Granular Chips

Amount of Bentonite: # of bags 1 lbs. per bag 50

Type of Sand Pack: FilterSil #1 10-20

Source of Sand: FilterSil Junction City, GA

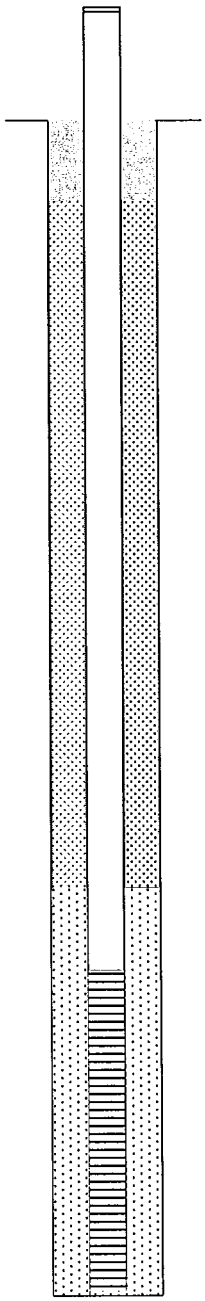
Amount of Sand: # of bags 4 lbs. per bag 50

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			Sch 40	
Riser pipe above wt			Sch 40	
Riser pipe below wt			Sch 40	
**Screen			Sch 40	
Coupling joint screen to riser			Sch 40	
Protective Casing				

Measurements to .1 ft. (where applicable)

Riser pipe length			8'	
Protective casing length				
Screen length			9.8'	
Bottom of screen to end cap			0.1'	
Top of screen to first joint			0.1'	
Total length of casing			---	
Screen slot size			0.010"	
% of openings in screen			---	
Diameter of borehole (in)			8.0"	
ID of riser pipe (in)			2.0"	



+3.0 MSL Top of Riser Pipe

0.0 MSL Ground Surface

1 ft. Concrete Seal

-1.0 ft. Top of Bentonite

2 ft. Bentonite Seal

-3.0 ft. Top of Sand

-5.0 ft. Top of Screen

10.0 ft. Total Screen Interval

15.0 ft. Bottom of Screen

-15.0 ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

Holcomb Foundation Engineering Co.
PO Box 88 Carbondale, Illinois

LOG of BORING C2

Unconfined Compressive Strength (Tons/Sq. Ft.)
1 2 3 4 5 6
Water Content (%)
Standard N Penetration, Blows/Ft.
10 20 30 40 50 60

Depth in Feet	Sample No.	Type Sample	Sample Distance	Description of Material
				Surface Elevation
				4" Crushed Stone
				Brown Silty CLAY (CL)
5		au		
10				Brown SANDSTONE Auger Refusal
15				End of Boring @ −12.0'
20				
25				
30				
35				

Ground Water Data
Ground Water Encountered @ −11.0' During Drilling and @ −5' Upon Completion.

Project: SIPC Monitoring Well Installation Marion, Illinois	Date of Boring February 16, 2010
Client: Southern Illinois Power Cooperative Plant Marion, Illinois	Project No. H−10037

Holcomb Foundation Engineering Company — **Monitoring Well Completion Report**

Site # H-10037 County Williamson Well # C2

Site Name Southern Illinois Power Cooperative Grid Coordinate Northing _____ Easting _____

Drilling Contractor Holcomb Foundation Engineering Date Drilled Start: 2/16/2010

Driller Dan Russell Geologist Tim Holcomb Date Completed: 2/16/2010

Drilling Method Hollow Stem Augers

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Bentonite Chips

Amount of Cement: # of bags _____ lbs. per bag _____

Amount of bentonite: # of bags _____ lbs. per bag _____

Type of Bentonite Seal (Granular, Pellet): Granular Chips

Amount of Bentonite: # of bags 1 lbs. per bag 50

Type of Sand Pack: FilterSil #1 10-20

Source of Sand: FilterSil Junction City, GA

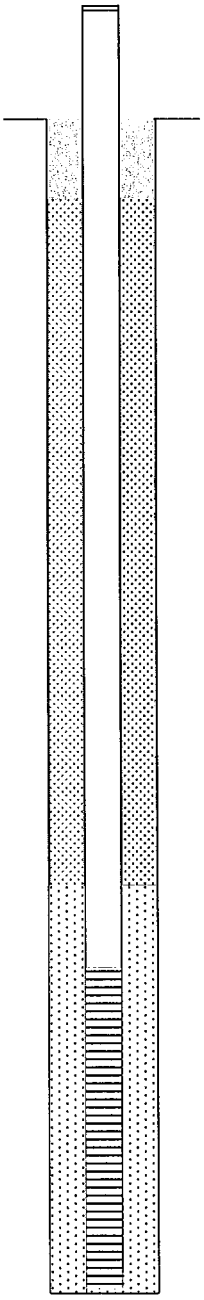
Amount of Sand: # of bags 4 lbs. per bag 50

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			Sch 40	
Riser pipe above wt			Sch 40	
Riser pipe below wt			Sch 40	
**Screen			Sch 40	
Coupling joint screen to riser			Sch 40	
Protective Casing				

Measurements to .1 ft. (where applicable)

Riser pipe length			5'	
Protective casing length				
Screen length			9.8'	
Bottom of screen to end cap			0.1'	
Top of screen to first joint			0.1'	
Total length of casing			---	
Screen slot size			0.010"	
% of openings in screen			---	
Diameter of borehole (in)			8.0"	
ID of riser pipe (in)			2.0"	



+3.0 MSL Top of Riser Pipe

0.0 MSL Ground Surface

0.5 ft. Concrete Seal

-0.5 ft. Top of Bentonite

0.5 ft. Bentonite Seal

-1.0 ft. Top of Sand

-2.0 ft. Top of Screen

10.0 ft. Total Screen Interval

12.0 ft. Bottom of Screen

-12.0 ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

HOLCOMB FOUNDATION ENGINEERING CO.

Geotechnical Engineering - Soil Borings - Monitoring Wells
Construction Materials Engineering and Testing

WOOD ROAD
P.O. BOX 68
CARBONDALE, ILLINOIS 62903-0068
618-529-5262
800-333-1740
FAX 618-457-8961

September 23, 1993

Southern Illinois Power Co-Operative
Rt. 4, Box 607
Marion, Illinois 62959

Attention: Mr. Leonard Hopkins

Re: Soil Borings and Monitoring Well Installations
SIPC Wells
Williamson County, Illinois
HFE File No. H-93196
SIPC Purchase Order #91-5041A

Dear Sir:

Enclosed are the Boring Logs and Well Completion Reports for the above referenced project drilled September 20 and 21, 1993.

If you should have any questions, please feel free to contact me at your convenience.

Sincerely,

HOLCOMB FOUNDATION ENGINEERING

Timothy J. Holcomb, P.E.

TJH/jar

Encls.

LOG OF BORING 1

UNCONFINED COMPRESSIVE STRENGTH, TONS/FT²

1 2 3 4 5 6

PLASTIC LIMIT % □ — WATER CONTENT % ○ — LIQUID LIMIT % △

STANDARD "N" PENETRATION, BLOWS/FT

10 20 30 40 50 80

DEPTH IN FEET	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	DESCRIPTION OF MATERIAL
				SURFACE ELEVATION
				Brown Silty CLAY (CL)
5				
10	1	au		
				Gray Silty CLAY (CL) w/Sand
15				
20				
				Gray Sandstone
25				End of Boring @ -25'

GROUND WATER DATA: Ground water encountered @ -13' during drilling; @ -14' upon completion.

PROJECT: SIPC Wells Williamson County, Illinois	DATE OF BORING: 9-20-93
CLIENT: Southern Illinois Power Co-Operative Marion, Illinois	PROJECT NO.: H-93196

Illinois Environmental Protection Agency — **Well Completion Report**

Site #: _____ County Williamson Well # 1

Site Name: Southern Illinois Power Co-Op Grid Coordinate: Northing _____ Easting _____

Drilling Contractor: Holcomb Foundation Engineering Co., Inc. Date Drilled Start: 9/20/93

Driller: J. Carter Geologist: T. Holcomb Date Completed: 9/20/93

Drilling Method: Hollow Stem Augers Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Quickrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 2 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 9

Type of Bentonite Seal (Granular, Pellet): Granular

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: Silica Sand

Source of Sand: Colorado Silica

Amount of Sand: # of bags 3 lbs. per bag 100

Well Construction Materials

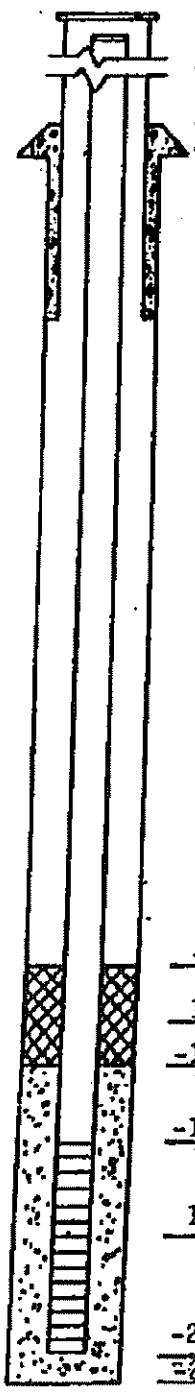
	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	SS304			
Riser pipe above w.t.	SS304			
Riser pipe below w.t.	SS304			
Screen	SS304			
Coupling joint screen to riser	SS304			
Protective casing				

Measurements

to .01 ft. (where applicable)

Riser pipe length	15
Protective casing length	-
Screen length	9.8
Bottom of screen to end cap	0.1
Top of screen to first joint	0.1
Total length of casing	-
Screen slot size	0.010"
# of openings in screen	-
Diameter of borehole (in)	8
ID of riser pipe (in)	2

Elevations — .01 ft.



3	MSL Top of Protective Casing
3	MSL Top of Riser Pipe
_____	ft. Casing Stickup
_____	MSL Ground Surface
-2	ft. Top of annular sealant
-2	ft. Top of Seal
11	ft. Total Seal Interval
-13	ft. Top of Sand
-15	ft. Top of Screen
10	ft. Total Screen Interval
-25	ft. Bottom of Screen
-25	ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

LOG OF BORING 3

UNCONFINED COMPRESSIVE STRENGTH, TONS/FT²
1 2 3 4 5 6
PLASTIC LIMIT % — WATER CONTENT % — LIQUID LIMIT %
STANDARD "N" PENETRATION, BLOWS/FT
10 20 30 40 50 60

DEPTH IN FEET	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	DESCRIPTION OF MATERIAL
				SURFACE ELEVATION
				3" Topsoil
				Brown Silty CLAY (CL)
5				
10	1	au		Brown Silty CLAY (CL) w/Sand
15				Gray Silty CLAY (CL) w/Sand
20				
25				End of Boring @ -25'

GROUND WATER DATA
Ground water encountered @ -18' during drilling; @ -25' upon completion.

PROJECT
SIPC Wells
Williamson County, Illinois

DATE OF BORING
9-20-93

CLIENT
Southern Illinois Power Co-Operative
Marion, Illinois

PROJECT NO.
H-93196

Illinois Environmental Protection Agency — **Well Completion Report**

Site #: _____ County Williamson Well # 3

Site Name: Southern Illinois Power Co-Op Grid Coordinate: Northing _____ Easting _____

Drilling Contractor: Holcomb Foundation Engineering Co., Inc. Date Drilled Start: 9/20/93

Driller: J. Carter Geologist: T. Holcomb Date Completed: 9/20/93

Drilling Method: Hollow Stem Augers Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Quickrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 2 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 9

Type of Bentonite Seal (Granular, Pellet): Granular

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: Silica Sand

Source of Sand: Colorado Silica

Amount of Sand: # of bags 3 lbs. per bag 100

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	SS304			
Riser pipe above w.t.	SS304			
Riser pipe below w.t.	SS304			
Screen	SS304			
Coupling joint screen to riser	SS304			
Protective casing				

Measurements

to .01 ft. (where applicable)

Riser pipe length	15
Protective casing length	-
Screen length	9.8
Bottom of screen to end cap	0.1
Top of screen to first joint	0.1
Total length of casing	-
Screen slot size	0.010"
% of openings in screen	-
Diameter of borehole (in)	8
ID of riser pipe (in)	2

Elevations — .01 ft.

3 — MSL Top of Protective Casing

3 — MSL Top of Riser Pipe

— — ft. Casing Stickup

— — MSL Ground Surface

-2 — ft. Top of annular sealant

-2 — ft. Top of Seal

11 — ft. Total Seal Interval

-13 — ft. Top of Sand

-15 — ft. Top of Screen

10 — ft. Total Screen Interval

-25 — ft. Bottom of Screen

-25 — ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

LOG OF BORING 4

UNCONFINED COMPRESSIVE STRENGTH, TONS/FT²
1 2 3 4 5 6
PLASTIC LIMIT % □ WATER CONTENT % ○ LIQUID LIMIT % △
STANDARD "N" PENETRATION, BLOWS/FT
10 20 30 X 40 50 60

DEPTH IN FEET	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	DESCRIPTION OF MATERIAL
				SURFACE ELEVATION
				5" Topsoil
				Brown Silty CLAY (CL) w/Sand
5	1	au		
10				
15				Brown Sandstone
20				End of Boring @ -18'

GROUND WATER DATA: No ground water encountered during drilling.

PROJECT: SIPC Wells Williamson County, Illinois	DATE OF BORING: 9-21-93
CLIENT: Southern Illinois Power Co-Operative Marion, Illinois	PROJECT NO.: H-93196

Illinois Environmental Protection Agency

Well Completion Report

Site #: _____ County: Williamson Well #: 4

Site Name: Southern Illinois Power Co-Op Grid Coordinate: Northing _____ Easting _____

Drilling Contractor: Holcomb Foundation Engineering Co., Inc. Date Drilled Start: 9/21/93

Driller: J. Carter Geologist: T. Holcomb Date Completed: 9/21/93

Drilling Method: Hollow Stem Augers Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Quickrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 1 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 4.5

Type of Bentonite Seal (Granular, Pellet): Granular

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: Silica Sand

Source of Sand: Colorado Silica

Amount of Sand: # of bags 3 lbs. per bag 100

Well Construction Materials

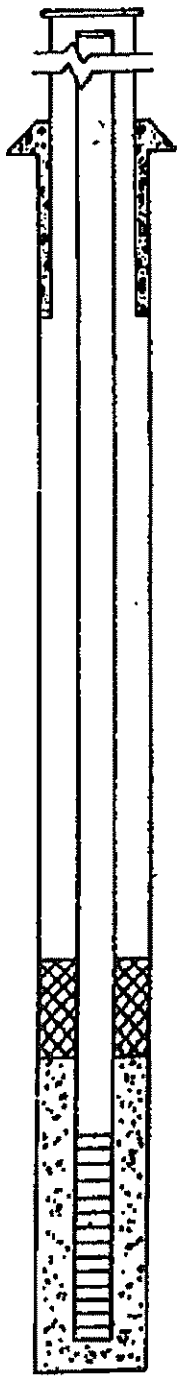
	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	SS304			
Riser pipe above w.t.	SS304			
Riser pipe below w.t.	SS304			
Screen	SS304			
Coupling joint screen to riser	SS304			
Protective casing				

Measurements

to .01 ft. (where applicable)

Riser pipe length	8
Protective casing length	-
Screen length	9.8
Bottom of screen to end cap	0.1
Top of screen to first joint	0.1
Total length of casing	-
Screen slot size	0.010"
% of openings in screen	-
Diameter of borehole (in)	8
ID of riser pipe (in)	2

Elevations — .01 ft.



3	MSL Top of Protective Casing
3	MSL Top of Riser Pipe
	ft. Casing Stickup
	MSL Ground Surface
-2	ft. Top of annular sealant
-2	ft. Top of Seal
4	ft. Total Seal Interval
-6	ft. Top of Sand
-8	ft. Top of Screen
10	ft. Total Screen Interval
-18	ft. Bottom of Screen
-18	ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

LOG OF BORING 5

UNCONFINED COMPRESSIVE STRENGTH, TONS/FT²

1 2 3 4 5 6

PLASTIC LIMIT % □ | WATER CONTENT % ○ | LIQUID LIMIT % △

STANDARD "N" PENETRATION, BLOWS/FT

10 20 30 X 40 50 60

DEPTH IN FEET	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	DESCRIPTION OF MATERIAL
				SURFACE ELEVATION
				5" Topsoil
				Brown Silty CLAY (CL)
5				
10	1	au		
15				Brown Silty CLAY (CL) w/Sand
20				Brown Sandstone
25				End of Boring @ -22 1/2'

GROUND WATER DATA: Ground water encountered @ -16' during drilling.

PROJECT: SIPC Wells Williamson County, Illinois	DATE OF BORING: 9-20-93
CLIENT: Southern Illinois Power Co-Operative Marion, Illinois	PROJECT NO.: H-93196

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Williamson Well #: 5

Site Name: SouthernIIIinois Power Co-Op Grid Coordinate: Northing _____ Easting _____

Drilling Contractor: Holcomb Foundation Engineering Co., Inc. Date Drilled Start: 9/20/93

Driller: J. Carter Geologist: T. Holcomb Date Completed: 9/20/93

Drilling Method: Hollow Stem Augers Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Quickrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 2 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 9

Type of Bentonite Seal (Granular, Pellet): Granular

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: Silica Sand

Source of Sand: Colorado Silica

Amount of Sand: # of bags 3 lbs. per bag 100

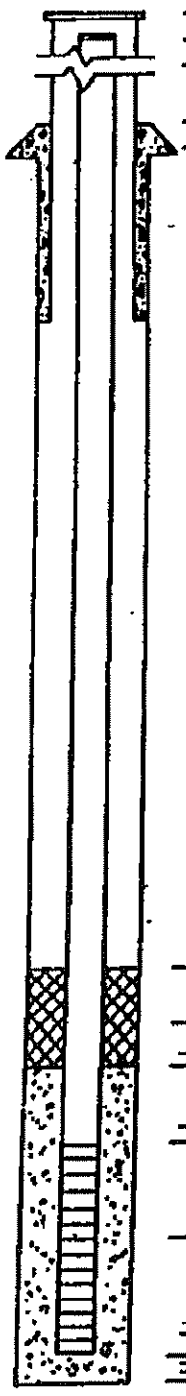
Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	SS304			
Riser pipe above w.t.	SS304			
Riser pipe below w.t.	SS304			
Screen	SS304			
Coupling joint screen to riser	SS304			
Protective casing				

Measurements to .01 ft. (where applicable)

Riser pipe length	12
Protective casing length	-
Screen length	9.8
Bottom of screen to end cap	0.1
Top of screen to first joint	0.1
Total length of casing	-
Screen slot size	0.010"
# of openings in screen	-
Diameter of borehole (in)	8
ID of riser pipe (in)	2

Elevations — .01 ft.



3	MSL Top of Protective Casing
3	MSL Top of Riser Pipe
_____	ft. Casing Stickup
_____	MSL Ground Surface
-2	ft. Top of annular sealant
-2	ft. Top of Seal
8	ft. Total Seal Interval
-10	ft. Top of Sand
-12	ft. Top of Screen
10	ft. Total Screen Interval
-22	ft. Bottom of Screen
-22	ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration #: _____

LOG OF BORING 6

UNCONFINED COMPRESSIVE STRENGTH, TONS/FT²
1 2 3 4 5 6
PLASTIC LIMIT % □ WATER CONTENT % ○ LIQUID LIMIT % △
STANDARD "N" PENETRATION, BLOWS/FT
10 20 30 X 40 50 60

DEPTH IN FEET	SAMPLE NO.	TYPE SAMPLE	SAMPLE DISTANCE	DESCRIPTION OF MATERIAL
				SURFACE ELEVATION
				5" Topsoil
				Brown Silty CLAY (CL)
5				
10	1	au		Brown Silty CLAY (CL) w/Sand
15				
20				Brown Sandstone
				End of Boring @ -22 1/2'
25				

GROUND WATER DATA
Ground water encountered @ -7' during drilling.

PROJECT: SIPC Wells
Williamson County, Illinois

DATE OF BORING: 9-20-93

CLIENT: Southern Illinois Power Co-Operative
Marion, Illinois

PROJECT NO.: H-93196

Illinois Environmental Protection Agency — Well Completion Report

Site #: _____ County: Williamson Well #: 6

Site Name: Southern Illinois Power Co-Op Grid Coordinate: Northing _____ Easting _____

Drilling Contractor: Holcomb Foundation Engineering Co., Inc. Date Drilled Start: 9/20/93

Driller: J. Carter Geologist: T. Holcomb Date Completed: 9/20/93

Drilling Method: Hollow Stem Augers Drilling Fluids (type): None

Annular Space Details

Type of Surface Seal: Quickrete

Type of Annular Sealant: Cement/Bentonite

Amount of cement: # of bags 2 lbs. per bag 94

Amount of bentonite: # of bags 1 lbs. per bag 9

Type of Bentonite Seal (Granular, Pellet): Granular

Amount of bentonite: # of Bags 1 lbs. per bag 50

Type of Sand Pack: Silica Sand

Source of Sand: Colorado Silica

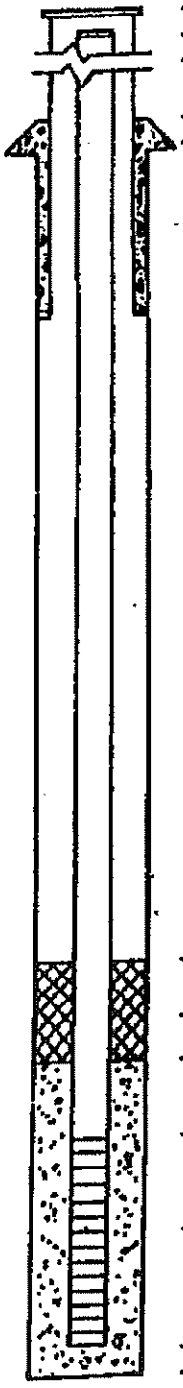
Amount of Sand: # of bags 3 lbs. per bag 100

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint	SS304			
Riser pipe above w.t.	SS304			
Riser pipe below w.t.	SS304			
Screen	SS304			
Coupling joint screen to riser	SS304			
Protective casing				

Measurements to .01 ft. (where applicable)

Riser pipe length	12
Protective casing length	-
Screen length	9.8
Bottom of screen to end cap	0.1
Top of screen to first joint	0.1
Total length of casing	-
Screen slot size	0.010"
% of openings in screen	-
Diameter of borehole (in)	8
ID of riser pipe (in)	2



Elevations — .01 ft.

3	MSL Top of Protective Casing
3	MSL Top of Riser Pipe
	ft. Casing Stickup
	MSL Ground Surface
-2	ft. Top of annular sealant
-2	ft. Top of Seal
8	ft. Total Seal Interval
-10	ft. Top of Sand
12	ft. Top of Screen
10	ft. Total Screen Interval
-22	ft. Bottom of Screen
-22	ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

Holcomb Foundation Engineering Co., Inc.

SOILS • BITUMINOUS • CONCRETE • ENGINEERING AND TESTING

SHIPPING ADDRESS
393 Wood Road
Carbondale, IL 62901

MAILING ADDRESS
PO Box 88
Carbondale, IL 62903

PHONE 618-529-5262
TOLL FREE 800-333-1740
FAX 618-457-8991

February 21, 2011

Southern Illinois Power Cooperative
11543 Lake of Egypt
Marion, Illinois 62959

Attention: Mr. Jason McLaurin

Re: Monitoring Well Installation
Southern Illinois Power Cooperative
Marion, Illinois
HFE File H-10037

Dear Sir:

In response to your request, on February 18, 2011, we drilled and installed monitoring well # S2 at the above referenced site, and abandoned and grouted the old well #S2. Enclosed are the Boring Log and Monitoring Well Completion Diagram. If you should have any questions, please feel free to contact us at your convenience.

Sincerely,

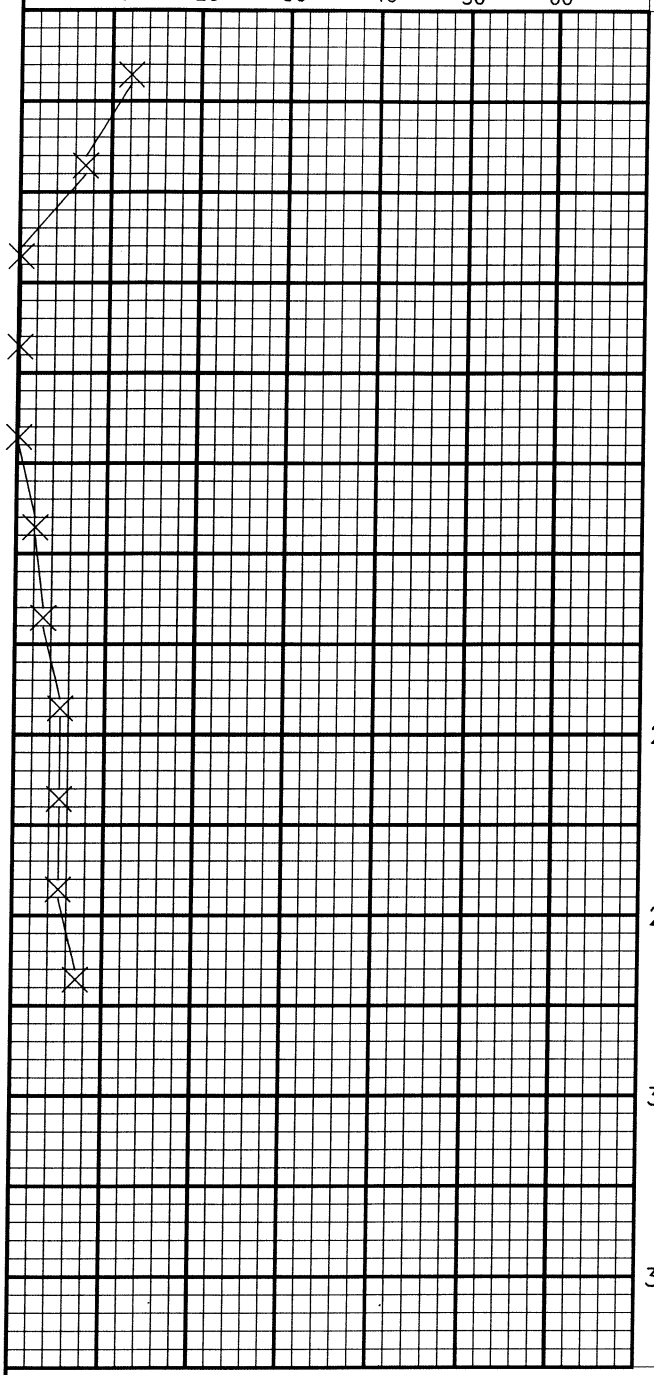
HOLCOMB FOUNDATION ENGINEERING CO.

Timothy J. Holcomb, P.E.

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY J.
HOLCOMB
062-042149
Expires 11-30-11
ILLINOIS

Enclosures

Holcomb Foundation Engineering Co. LOG OF BORING S-2
PO Box 88 Carbondale, Illinois



Depth in Feet	Sample No.	Type Sample	Sample Distance	Description of Material
				Surface Elevation
				Brown to Gray Silty CLAY (CL)
	1	ss		
5	2	ss		
	3	ss		
	4	ss		Gray Silty CLAY (CL) with sand
10	5	ss		
	6	ss		Brown Mottled Gray Clayey SAND(SC)
15	7	ss		Gray Clayey SAND (SC)
	8	ss		
20	9	ss		Gray Silty CLAY (CL) with sand
	10	ss		Gray Clayey SAND (SC)
25	11	ss		Gray Sandy CLAY (CL)
				End of Boring @ -27.5'
30				
35				

Ground Water Data
Ground Water Encountered @ -9.0' During Drilling.

Project: SIPC Monitoring Well Installation
Marion, Illinois

Date of Boring
February 18, 2011

Client: Southern Illinois Power Cooperative Plant
Marion, Illinois

Project No.
H-10037

Holcomb Foundation Engineering Company — **Monitoring Well Completion Report**

Site # H-10037 County Williamson Well # S2

Site Name Southern Illinois Power Cooperative Grid Coordinate Northing _____ Easting _____

Drilling Contractor Holcomb Foundation Engineering Date Drilled Start: 2/18/2010

Driller Dan Russell Geologist Tim Holcomb Date Completed: 2/18/2010

Drilling Method Hollow Stem Augers

Annular Space Details

Type of Surface Seal: Concrete

Type of Annular Sealant: Bentonite Chips

Amount of Cement: # of bags _____ lbs. per bag _____

Amount of bentonite: # of bags _____ lbs. per bag _____

Type of Bentonite Seal (Granular, Pellet): Granular Chips

Amount of Bentonite: # of bags 5 lbs. per bag 50

Type of Sand Pack: FilterSil #1 10-20

Source of Sand: FilterSil Junction City, GA

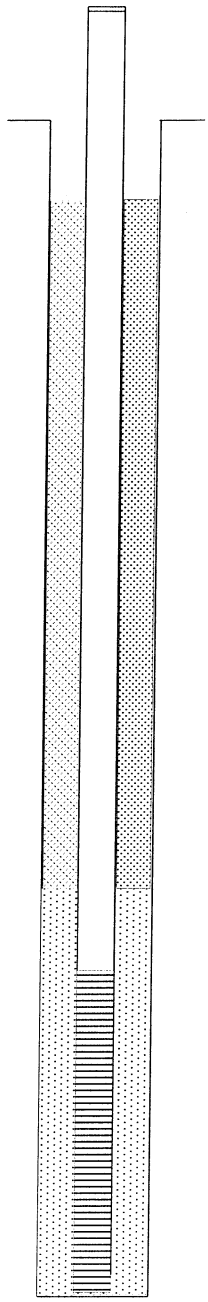
Amount of Sand: # of bags 2 lbs. per bag 50

Well Construction Materials

	Stainless Steel Specify Type	Teflon Specify Type	PVC Specify Type	Other Specify Type
Riser coupling joint			Sch 40	
Riser pipe above wt			Sch 40	
Riser pipe below wt			Sch 40	
**Screen			Sch 40	
Coupling joint screen to riser			Sch 40	
Protective Casing			5 ft	

Measurements to .1 ft. (where applicable)

Riser pipe length			19'	
Protective casing length				
Screen length			9.8'	
Bottom of screen to end cap			0.1'	
Top of screen to first joint			0.1'	
Total length of casing			---	
Screen slot size			0.010"	
% of openings in screen			---	
Diameter of borehole (in)			8.0"	
ID of riser pipe (in)			2.0"	



+3.0 MSL Top of Riser Pipe

0.0 MSL Ground Surface

1 ft. Concrete Seal

-1.0 ft. Top of Bentonite

13 ft. Bentonite Seal

-14.0 ft. Top of Sand

-16.0 ft. Top of Screen

10.0 ft. Total Screen Interval

26.0 ft. Bottom of Screen

-27.5 ft. Bottom of Borehole

Completed by: T. Holcomb Surveyed by: _____ Ill. registration # _____

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 41

Second Declaration of Jason McLaurin On Behalf of Southern Illinois Cooperative

I, Jason McLaurin, affirm and declare as follows:

1. I am currently employed as Environmental Coordinator at Southern Illinois Power Cooperative, which operates an electric power generating facility, located south of Marion, Illinois, in Williamson County ("Marion Station"). My responsibilities include overseeing environmental compliance and related activities at the Marion Station. I have been employed at SIPC since July 9, 2007. I have a degree in Plant & Soil Science from Southern Illinois University Carbondale.

2. Based on my personal knowledge and belief, the following statements are true and correct.

   a. In or around 2007, the area at the north end of the South Fly Ash Pond was dewatered and used as a storage pad for overburden coal from Prairie State.

   b. CCR cannot be burned as fuel. Sediment that was removed from Former Pond B-3 and from Pond 4 that was then burned as fuel at the Marion Station could not, therefore, have contained any appreciable amount of CCR.

   c. Long narrow strips on top of the historic CCR landfill at Marion Station were used when emergency conditions existed due to sub-freezing temperatures. During such times, scrubber solids were temporarily pumped into these strips on top of the landfill. The scrubber solids were allowed to decant and the solids were then immediately removed from the strips and placed dry, onto the CCR landfill.

   d. Starting around 2000, a cavity on top of the closed Initial Fly Ash Holding Unit was used as a holding pond for coal yard runoff. It was also occasionally used during emergency conditions due to sub-freezing temperatures to receive scrubber solids, which were removed and then placed dry, onto the CCR landfill.

   e. After its closure, occasional ponding occurred in small areas on top of the Fly Ash

Holding Extension area due to rainfall.

Further the Declarant sayeth not.

Date: 4|10|2025

Jason A. McLaurin

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 42

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
PETITION OF SOUTHERN ILLINOIS POWER COOPERATIVE FOR AN ADJUSTED STANDARD FROM 35 ILL. ADM. CODE 845 OR, IN THE ALTERNATIVE A FINDING OF INAPPLICABILITY	)	**AS 2021-006 (Adjusted Standard)**

PETITIONER SOUTHERN ILLINOIS POWER COOPERATIVE'S SECOND SET OF INTERROGATORIES

Petitioners Southern Illinois Power Cooperative ("SIPC"), by and through its counsel, ArentFox Schiff, LLP, and in accordance with 35 Ill. Admin. Code 101.620 and the Hearing Officer's January 17, 2023 Order, requests that the Illinois Environmental Protection Agency answer under oath the following interrogatories.

INSTRUCTIONS and DEFINITIONS

1. The instructions and definitions from Southern Illinois Power Cooperative's First Set of Interrogatories are restated herein.

INTERROGATORIES

Interrogatory 18. Does IEPA agree that the area described in the Petition for Adjusted Standard as the Former Landfill would be regulated by 35 Ill. Admin. Code Part 815 and/or Part 811 and subject to closure under 35 Ill. Admin. Code Part 811 if 35 Ill Admin. Code part 845 had not been promulgated? If not, why?

RESPONSE: Objection. This question calls for speculation. Without waiving said objection, the Agency acknowledges the area at SIPC had been considered by the Bureau of Land to be a Part 815 on site landfill. Pursuant to the addition of CCR regulation under the Environmental Protection Act and the adoption of Part 845 by the Illinois Pollution Control Board, the Agency determined that the Former Landfill is subject to Part 845 since this area meets the definition of a CCR Surface Impoundment.

Interrogatory 19. Is it IEPA's position that but for the promulgation of 35 Ill Admin. Code Part 845, SIPC could close under 35 Ill Admin. Code Part 811 the area described in the Petition for Adjusted Standard as the Former Landfill? If not, please explain why.

RESPONSE: Objection. This question calls for speculation. This site has not been evaluated under Part 811 for closure. Also, the site meets the definition of a CCR Surface Impoundment under the Act and Part 845.

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 43

Bureau of Land – Field Operations Section
Response/Document Review

General Facility Information			
BOL ID:	1990555005	**Region:**	Marion
USEPA ID:	ILD007813900	**County:**	Williamson
Site Name:	Southern Illinois Power Cooperative	**Phone:**	618-964-2268
Address:	11543 Lake of Egypt Road	**Latitude:**	37.61968
City/State/Zip:	Marion, IL 62959	**Longitude:**	-88.95308
Permit No(s):	None		
Regulated As:	Part 815 Landfill		
Operational Status:	Inactive, Not Closed		

Owner	Operator
Southern Illinois Power Cooperative Attn: Donald Gulley, Agent 11543 Lake of Egypt Road Marion, IL 62959	Southern Illinois Power Cooperative Attn: Donald Gulley, Agent 11543 Lake of Egypt Road Marion, IL 62959

Inspection Details	
In Response To	Response to VN
Inspection Type	Response/Document Review
Inspection Date	5/3/2021
Inspector(s)	Williams, Sheila
Person(s) Interviewed	None
Previous Inspection Date	9/27/2019

Executive Summary

On May 3, 2021, the apparent violations addressed in the March 20, 2020 Violation Notice L-2020-00035 and March 24, 2020 Violation Notice L-2020-00042 were dropped by the Illinois EPA's (Illinois Environmental Protection Agency) Bureau of Land (BOL). This decision was made based on the contents of an April 21, 2021 email received from Lynn Dunaway with the Illinois EPA's Bureau of Water (BOW).

Inspection Narrative

The Illinois EPA's BOL was recently informed by the Illinois EPA's BOW that the area at Southern Illinois Power Cooperative which BOL has considered to be a Part 815 on site landfill meets the definition of a coal combustion residual (CCR) surface impoundment and should be addressed by BOW under Part 845. Mr. Dunaway's email states discussions were held between Kyle Rominger (BOL Bureau Chief), Sanjay Sofat (BOW Bureau Chief), and Director John Kim. The decision was made that BOW will oversee the closure, post-closure, and any corrective action per Part 845. As such, BOL has dropped the outstanding violations pertaining to the onsite landfill.

Summary of Apparent Violation(s)			
Status	Date	Violation	Narrative
Dropped	1/7/2020	21(e)	Dispose, treat, store, abandon any waste, or transport any waste into Illinois at or to sites not meeting requirements of the Act

Dropped	1/7/2020	620.115	Cause, threaten or allow a violation of the Act, the IGPA or regulations adopted by the Board
Dropped	1/7/2020	620.420(a)	Inorganic standards for Class II groundwater
Dropped	1/7/2020	620.420(b)	Organic chemical constituents for Class II groundwater
Dropped	1/7/2020	620.420(c)	Explosive constituents for Class II groundwater
Dropped	1/7/2020	811.318	811.318(c) Maximum Allowable Predicted Concentrations (MAPCs)
Dropped	1/7/2020	811.318(e)	Standards for Sample Collection and Analysis
Dropped	1/7/2020	811.319(a)(2)	Criteria for choosing constituents to be monitored
Dropped	1/7/2020	811.319(a)(3)	Organic chemicals monitoring
Dropped	1/7/2020	811.320(d)	Establishment of background concentrations
Dropped	9/27/2019	21(e)	Dispose, treat, store, abandon any waste, or transport any waste into Illinois at or to sites not meeting requirements of the Act
Dropped	9/27/2019	811.313(a)	All waste not to be covered within 60 days by another lift of waste or final cover must have cover equivalent to 0.30 m (1') compacted clean soil material
Dropped	9/27/2019	811.314(a)	Unit covered by final cover consisting of low permeability layer overlain by final protective layer constructed per §811.314 unless Agency RD&D permit allows use of innovative final cover technology per adjusted standard and permit is in effect
Dropped	9/27/2019	811.314(b)	Low permeability layer constructed within 60 days after final waste lift placement; low permeability layer covers entire unit and connects with liner system; consists of compacted earth layer constructed with minimum allowable thickness of 0.91 m (3') and compacted to minimize void spaces and achieve permeability of 1 x 10-7 cm/sec, geomembrane constructed to provide performance equal or superior to compacted earth layer of (b)(3)(A) with strength to withstand normal stresses imposed by waste stabilization and placed over prepared base free from sharp objects and other materials that may cause damage, or any other low permeability layer construction techniques or materials providing equivalent or superior performance to above; for MSWLFs, if bottom liner permeability is <1 x 10-7 cm/sec, permeability of final cover low permeability layer must be less than or equal to the permeability of bottom liner system
Dropped	9/27/2019	811.314(c)	Final protective layer must cover entire low permeability layer; thickness of final protective layer sufficient to protect low permeability layer from freezing and minimize root penetration, and at least 0.91 m (3') thick; final protective layer consists of soil material capable of supporting vegetation; final protective layer placed as soon as possible after placement of low permeability layer to prevent desiccation, cracking, freezing, or other damage to low permeability layer
Dropped	9/27/2019	811.322(a).	Final slopes designed and constructed to support vegetation and minimize erosion
Dropped	9/27/2019	811.322(c)	Vegetation promoted on all reconstructed surfaces to minimize erosion of final protective cover; vegetation compatible with climatic conditions; vegetation requires little maintenance; vegetation consists of diverse mix of native and introduced species consistent with postclosure land use; vegetation tolerant

			of landfill gas; root depth does not exceed depth of final protective cover; and temporary erosion control measures undertaken while vegetation is being established
Dropped	9/27/2019	815.203	Initial facility report contents

Summary of Apparent Violation(s)			
Status	Date	Violation	Narrative
None Observed			

Attachment Listing		
ID	Type	Description
No Attachments.		

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 44

10D

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026
PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

1990555005
Southern Illinois Power
10825 Lake of Egypt Rd.
Marion, IL 62959

On-Site Permit Exempt "815" Facility
2009 Annual Report

35 Ill. Adm. Code 815 requires all **landfills** exempt from permits pursuant to Section 21(d) of the Environmental Protection Act to submit **annual** reports to the Agency. These reports must be filed during the operation of the facility and for the entire post closure monitoring period.

This annual report is due **February 15, 2010** and covers the period of January 1, 2009 thru December 31, 2009.

The below information is required to be submitted to the Illinois Environmental Protection Agency under 35 Illinois Administrative Code 815.301. If you have any questions, please contact the Permit Section's Waste Reduction and Compliance Section at 217/524-3300.

A. LIST TYPE OF WASTE: Coal Combustion Byproducts.

If there is more than one type of waste, please attach a summary of each waste type and the amounts.

B. WASTE VOLUME SUMMARY

1. Total amount of solid waste disposed, stored or treated on-site to date:
   1,329,247 (in place cubic yards)
2. Remaining capacity in existing units at the facility:
   945,160 (in place cubic yards)

IL 532 2428
LPC 536 Rev. Oct. 03

The Illinois Environmental Protection Agency is authorized to require this information under 415 Illinois Compiled Statues 5/21/92. Disclosure of this information is required. Failure to do so may result in a civil penalty of up to $50,000 and an additional civil penalty up to $10,000 for each day during which the violation continues. This form has been approved by the Forms Management Center.

RELEASABLE
APR 01 2010
REVIEWER MD

RECEIVED
FEB 8 2010
IEPA/BOL/WRCS

Rockford • 4302 N. Main St., Rockford, IL 61103 • (815) 987-7760
Elgin • 595 S. State, Elgin, IL 60123 • (847) 608-3131
Bureau of Land – Peoria • 7620 N. University St., Peoria, IL 61614 • (309) 693-5462
Collinsville • 2009 Mall Street, Collinsville, IL 62234 • (618) 346-5120
Des Plaines • 9511 W. Harrison St., Des Plaines, IL 60016 • (847) 294-4000
Peoria • 5415 N. University St., Peoria, IL 61614 • (309) 693-5463
Champaign • 2125 S. First St., Champaign, IL 61820 • (217) 278-5800
Marion • 2309 W. Main St., Suite 116, Marion, IL 62959 • (618) 993-7200

Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Lexington 859.276.3506 • Paducah 270.898.3637 • Evansville 812.464.9000

Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0910-00057

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
11543 LAKE OF EGYPT ROAD
MARION, IL 62959

Date Reported	10/09/2009
Date Due	10/09/2009
Date Received	10/01/2009
Date Sampled	10/01/2009
Invoice No.	57572
Customer #	5660
Customer P.O.	

SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 002 C3 TRAIN TRACK									Date & Time Sampled: 10/01/2009 @ 10:27			
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM		UJ	<0.0010	MG/L			EPA 200.7	0.001	0.001	10/05/09	17:46	EML
IRON			3.3	MG/L			EPA 200.7		0.01	10/05/09	17:46	EML
SULFATE			57	MG/L			EPA 300.0		2.5	10/08/09	2:30	JPM
Sample: 003 S1 SWAMP									Date & Time Sampled: 10/01/2009 @ 11:28			
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM			0.0042	MG/L			EPA 200.7	0.001	0.001	10/05/09	17:51	EML
IRON			27	MG/L			EPA 200.7		0.01	10/05/09	17:51	EML
SULFATE			26	MG/L			EPA 300.0		2.5	10/08/09	2:44	JPM
Sample: 004 S2 POLE LOW LAND									Date & Time Sampled: 10/01/2009 @ 11:07			
BORON			1.8	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM			0.020	MG/L			EPA 200.7	0.001	0.001	10/05/09	17:56	EML
IRON			26	MG/L			EPA 200.7		0.01	10/05/09	17:56	EML
SULFATE			100	MG/L			EPA 300.0		5	10/08/09	2:58	JPM
Sample: 005 S3 LOW LAND									Date & Time Sampled: 10/01/2009 @ 10:57			
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM			0.0038	MG/L			EPA 200.7	0.001	0.001	10/05/09	18:00	EML
IRON			0.25	MG/L			EPA 200.7		0.1	10/06/09	23:36	EML
SULFATE			<0.50	MG/L			EPA 300.0		0.5	10/08/09	20:14	JPM
Sample: 006 S4 FIELD BY ROAD									Date & Time Sampled: 10/01/2009 @ 10:44			
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM		UJ	<0.0010	MG/L			EPA 200.7	0.001	0.001	10/05/09	18:14	EML
IRON			2.2	MG/L			EPA 200.7		0.01	10/05/09	18:14	EML
SULFATE			41	MG/L			EPA 300.0		2.5	10/08/09	3:26	JPM

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KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Lexington 859.276.3506 • Paducah 270.898.3637 • Evansville 812.464.9000

Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0910-00057

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Date Reported 10/09/2009
Date Received 10/01/2009
Date Sampled 10/01/2009

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 007 S5 OLD MAIN ENTRANCE							Date & Time Sampled: 10/01/2009 @ 10:11					
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM		J1	0.0011	MG/L			EPA 200.7	0.001	0.001	10/05/09	18:18	EML
IRON			1.6	MG/L			EPA 200.7		0.01	10/05/09	18:18	EML
SULFATE			180	MG/L			EPA 300.0		5	10/08/09	3:40	JPM
Sample: 008 S6 PARKING LOT							Date & Time Sampled: 10/01/2009 @ 11:40					
BORON			<0.5	MG/L			EPA 200.7		0.5	10/05/09	15:00	MSR
CADMIUM		UJ	<0.0010	MG/L			EPA 200.7	0.001	0.001	10/05/09	18:23	EML
IRON			1.5	MG/L			EPA 200.7		0.01	10/05/09	18:23	EML
SULFATE			66	MG/L			EPA 300.0		2.5	10/08/09	3:54	JPM

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: R. Clayton

MICROBAC LABORATORIES, INC.

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Sean Hyde, the Managing Director at 502.962.6400. You may also contact both Trevor Boyce, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Lexington 859.276.3506 • Paducah 270.898.3637 • Evansville 812.464.9000

Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0909-00294

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
11543 LAKE OF EGYPT ROAD
MARION, IL 62959

Date Reported	09/16/2009
Date Due	09/12/2009
Date Received	09/03/2009
Date Sampled	09/03/2009
Invoice No.	56133
Customer #	5660
Customer P.O.	

SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Analysis	Out of Spec	Qualif	Result	Unit	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 002 C3 TRAIN TRACK							Date & Time Sampled: 09/03/2009 @ 11:35			
BORON			<0.5	MG/L	EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM		UJ	<0.0010	MG/L	EPA 200.7	0.001	0.001	09/10/09	14:32	EML
IRON			1.8	MG/L	EPA 200.7		0.01	09/10/09	14:32	EML
SULFATE			63	MG/L	EPA 300.0		2.5	09/12/09	11:46	JPM
Sample: 003 S1 SWAMP							Date & Time Sampled: 09/03/2009 @ 12:21			
BORON			<0.5	MG/L	EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM			0.011	MG/L	EPA 200.7	0.001	0.001	09/10/09	14:37	EML
IRON			40	MG/L	EPA 200.7		0.01	09/10/09	14:37	EML
SULFATE			16	MG/L	EPA 300.0		0.5	09/12/09	12:00	JPM
Sample: 004 S2 POLE LOW LAND							Date & Time Sampled: 09/03/2009 @ 12:02			
BORON			0.88	MG/L	EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM			0.0081	MG/L	EPA 200.7	0.001	0.001	09/10/09	14:41	EML
IRON			42	MG/L	EPA 200.7		0.01	09/10/09	14:41	EML
SULFATE			72	MG/L	EPA 300.0		2.5	09/12/09	12:14	JPM
Sample: 005 S3 LOW LAND							Date & Time Sampled: 09/03/2009 @ 11:50			
BORON			<0.5	MG/L	EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM			0.0031	MG/L	EPA 200.7	0.001	0.001	09/10/09	14:46	EML
IRON			56	MG/L	EPA 200.7		0.1	09/14/09	10:28	EML
SULFATE			2.6	MG/L	EPA 300.0		2.5	09/12/09	12:28	JPM
Sample: 006 S4 FIELD BY ROAD							Date & Time Sampled: 09/03/2009 @ 11:38			
BORON			<0.5	MG/L	EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM		UJ	<0.0010	MG/L	EPA 200.7	0.001	0.001	09/10/09	14:51	EML
IRON			1.6	MG/L	EPA 200.7		0.01	09/10/09	14:51	EML
SULFATE			41	MG/L	EPA 300.0		2.5	09/12/09	12:43	JPM

Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Lexington 859.276.3506 • Paducah 270.898.3637 • Evansville 812.464.9000

Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0909-00294

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Date Reported 09/16/2009
Date Received 09/03/2009
Date Sampled 09/03/2009

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 007 S5 OLD MAIN ENTRANCE							Date & Time Sampled: 09/03/2009 @ 11:02					
BORON			<0.5	MG/L			EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM		UJ	<0.0010	MG/L			EPA 200.7	0.001	0.001	09/10/09	14:55	EML
IRON		M3	7.0	MG/L			EPA 200.7		0.01	09/10/09	14:55	EML
SULFATE			190	MG/L			EPA 300.0		5	09/12/09	12:57	JPM
Sample: 008 S6 PARKING LOT							Date & Time Sampled: 09/03/2009 @ 12:35					
BORON			<0.5	MG/L			EPA 200.7		0.5	09/15/09	14:00	MSR
CADMIUM		J1	0.0013	MG/L			EPA 200.7	0.001	0.001	09/10/09	15:18	EML
IRON			26	MG/L			EPA 200.7		0.01	09/10/09	15:18	EML
SULFATE			71	MG/L			EPA 300.0		2.5	09/12/09	13:11	JPM

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: _____

MICROBAC LABORATORIES, INC.

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For any feedback concerning our services, please contact Sean Hyde, the Managing Director at 502.962.6400. You may also contact both Trevor Boyce, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

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CERTIFICATE OF ANALYSIS

0905-01457

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
11543 LAKE OF EGYPT ROAD
MARION, IL 62959

Date Reported	06/02/2009
Date Due	05/30/2009
Date Received	05/21/2009
Date Sampled	05/21/2009
Invoice No.	49250
Customer #	5660
Customer P.O.	

SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 002 C3 TRAIN TRACK							Date & Time Sampled: 05/21/2009 @ 11:00					
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	05/29/09	6:00	MSR
IRON			1.25	MG/L			EPA 200.7		0.05	05/29/09	6:00	MSR
SULFATE			68	MG/L			EPA 300.0		50	05/27/09	20:15	LER
Sample: 003 S1 SWAMP							Date & Time Sampled: 05/21/2009 @ 17:10					
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM			0.013	MG/L			EPA 200.7	0.001	0.001	05/29/09	6:00	MSR
IRON			69	MG/L			EPA 200.7		0.05	05/31/09	16:00	MSR
SULFATE			24	MG/L			EPA 300.0		2.5	05/28/09	22:51	LER
Sample: 004 S2 POLE LOW LAND							Date & Time Sampled: 05/21/2009 @ 11:41					
BORON			1.9	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM			0.017	MG/L			EPA 200.7	0.001	0.001	05/29/09	6:00	MSR
IRON			29.9	MG/L			EPA 200.7		0.05	05/29/09	6:00	MSR
SULFATE			99	MG/L			EPA 300.0		50	05/27/09	20:43	LER
Sample: 005 S3 LOW LAND							Date & Time Sampled: 05/21/2009 @ 11:25					
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM		J1	0.002	MG/L			EPA 200.7	0.001	0.001	05/29/09	6:00	MSR
IRON			37.3	MG/L			EPA 200.7		0.05	05/29/09	6:00	MSR
SULFATE			20	MG/L			EPA 300.0		2.5	05/28/09	23:05	LER
Sample: 006 S4 FIELD BY ROAD							Date & Time Sampled: 05/21/2009 @ 11:14					
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	05/29/09	7:00	MSR

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Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0905-01457

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Date Reported 06/02/2009
Date Received 05/21/2009
Date Sampled 05/21/2009

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 006 S4 FIELD BY ROAD										Date & Time Sampled: 05/21/2009 @ 11:14		
IRON			0.43	MG/L			EPA 200.7		0.05	05/29/09	7:00	MSR
SULFATE			42	MG/L			EPA 300.0		2.5	05/28/09	23:19	LER
Sample: 007 S5 OLD MAIN ENTRANCE										Date & Time Sampled: 05/21/2009 @ 10:43		
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	05/29/09	7:00	MSR
IRON			4.00	MG/L			EPA 200.7		0.05	05/29/09	7:00	MSR
SULFATE			180	MG/L			EPA 300.0		50	05/27/09	21:25	LER
Sample: 008 S6 PARKING LOT										Date & Time Sampled: 05/21/2009 @ 12:21		
BORON			<0.5	MG/L			EPA 200.7		0.5	06/01/09	9:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	05/29/09	7:00	MSR
IRON			3.60	MG/L			EPA 200.7		0.05	05/29/09	7:00	MSR
SULFATE			73	MG/L			EPA 300.0		50	05/27/09	21:39	LER

UNLESS OTHERWISE NOTED, SAMPLES RESULTS ARE REPORTED ON AN AS RECEIVED BASIS

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: R. Clayton

MICROBAC LABORATORIES, INC.

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For any feedback concerning our services, please contact Sean Hyde, the Managing Director at 502.962.6400. You may also contact both Trevor Boyce, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

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Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0903-01260

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
11543 LAKE OF EGYPT ROAD
MARION, IL 62959

SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Date Reported	03/30/2009
Date Due	03/29/2009
Date Received	03/19/2009
Date Sampled	03/19/2009
Invoice No.	45119
Customer #	5660
Customer P.O.	

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 002 C3 TRAIN TRACK — Date & Time Sampled: 03/19/2009 @ 10:35												
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			1.81	MG/L			EPA 200.7		0.05	03/24/09	16:00	MSR
SULFATE			36	MG/L			EPA 300.0		2.5	03/27/09	18:54	JPM
Sample: 003 S1 SWAMP — Date & Time Sampled: 03/19/2009 @ 11:05												
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM			0.02	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			14.1	MG/L			EPA 200.7		0.05	03/24/09	16:00	MSR
SULFATE			24	MG/L			EPA 300.0		2.5	03/27/09	19:09	JPM
Sample: 004 S2 POLE LOW LAND — Date & Time Sampled: 03/19/2009 @ 11:21												
BORON			2.4	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM			0.01	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			80	MG/L			EPA 200.7		0.05	03/26/09	9:00	MSR
SULFATE			96	MG/L			EPA 300.0		2.5	03/27/09	19:23	JPM
Sample: 005 S3 LOW LAND — Date & Time Sampled: 03/19/2009 @ 11:05												
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			130	MG/L			EPA 200.7		0.05	03/26/09	9:00	MSR
SULFATE			<2.5	MG/L			EPA 300.0		2.5	03/27/09	19:37	JPM
Sample: 006 S4 FIELD BY ROAD — Date & Time Sampled: 03/19/2009 @ 10:51												
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			3.53	MG/L			EPA 200.7		0.05	03/24/09	16:00	MSR
SULFATE			42	MG/L			EPA 300.0		2.5	03/27/09	19:51	JPM
Sample: 007 S5 OLD MAIN ENTRANCE — Date & Time Sampled: 03/19/2009 @ 10:17												
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			11.5	MG/L			EPA 200.7		0.05	03/24/09	16:00	MSR
SULFATE			200	MG/L			EPA 300.0		5	03/27/09	20:05	JPM

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Chemical, Biological, Physical, Molecular, and Toxicological Services

CERTIFICATE OF ANALYSIS

0903-01260

SOUTHERN ILLINOIS POWER COOP.
STEVE ROBINSON/LEONARD HOPKINS
SOUTHERN ILLINOIS POWER / QUARTERLY MONITORING WELLS

Date Reported 03/30/2009
Date Received 03/19/2009
Date Sampled 03/19/2009

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	Std Limit	Date	Time	Tech
Sample: 007 S5 OLD MAIN ENTRANCE ....continued										Date & Time Sampled: 03/19/2009 @ 10:17		
Sample: 008 S6 PARKING LOT										Date & Time Sampled: 03/19/2009 @ 11:48		
BORON			<0.5	MG/L			EPA 200.7		0.5	03/27/09	11:00	MSR
CADMIUM		UJ	<0.001	MG/L			EPA 200.7	0.001	0.001	03/24/09	16:40	MSR
IRON			1.02	MG/L			EPA 200.7		0.05	03/24/09	17:00	MSR
SULFATE			62	MG/L			EPA 300.0		2.5	03/27/09	20:19	JPM

UNLESS OTHERWISE NOTED, SAMPLES RESULTS ARE REPORTED ON AN AS RECEIVED BASIS

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: R. Clifton

MICROBAC LABORATORIES, INC.

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

10D

10D

1990555005
Southern Illinois Power
10825 Lake of Egypt Rd.
Marion, IL 62959

On-Site Permit Exempt "815" Facility
2019 Annual Report

35 Ill. Adm. Code 815 requires all **landfills** exempt from permits pursuant to Section 21(d) of the Environmental Protection Act to submit **annual** reports to the Agency. These reports must be filed during the operation of the facility and for the entire post closure monitoring period.

This annual report is due **February 15, 2020** and covers the period of January 1, 2019 thru December 31, 2019.

The below information is required to be submitted to the Illinois Environmental Protection Agency under 35 Illinois Administrative Code 815.301. If you have any questions, please contact the Permit Section's at 217/524-3300.

A. LIST TYPE OF WASTE: Coal Combustion By Products

If there is more than one type of waste, please attach a summary of each waste type and the amounts.

B. WASTE VOLUME SUMMARY

1. Total amount of solid waste disposed, stored or treated on-site to date:
   1,344,247 (in place cubic yards)
2. Remaining capacity in existing units at the facility:
   930,160 (in place cubic yards)

The Illinois Environmental Protection Agency is authorized to require this information under 415 Illinois Compiled Statues 5/21/92. Disclosure of this information is required. Failure to do so may result in a civil penalty of up to $50,000 and an additional civil penalty up to $10,000 for each day during which the violation continues. This form has been approved by the Forms Management Center.

IL 532 2428
LPC 536 Rev. Oct. 03

* THIS LANDFILL HASN'T RECIEVED MATERIAL FOR A NUMBER OF YEARS.

C. PROPOSED ACTIVITIES

1. Expected amount of waste to be disposed on-site **January 1, 2019** thru **December 31, 2019**:

_____ 0 _____ (in place cubic yards)

D. OTHER INFORMATION TO BE SUBMITTED

Please attach the following required information. Please indicate attachment number or letter in the blank provided.

Attachments

1. _____ Copies of all identification reports required under 35 Ill. Adm. Code 811.404.
2. X All raw monitoring data collected at the facility from the leachate collection system, groundwater monitoring network, and gas monitoring system.
3. _____ Graphical results of monitoring efforts.
4. _____ Statistical summaries and analysis of trends in the collected data.
5. _____ Changes to the monitoring program.
6. _____ Discussion of error analysis, detection limits, and observed trends.
7. _____ Description of structures to be built within the next year.
8. _____ Description of new monitoring stations to be installed within the next year.
9. _____ A summary of all modifications including significant modifications made to the operations during the course of the year.

E. SIGNATURE OF THE OPERATOR OR DULY AUTHORIZED AGENT

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Jason A. McLaurin — Name (print/type)

Jason A Mc — Signature

Phone: (618) 964 2446 Email: Jmclaurin@sipower.org

Please mail this form and attachments to the following address:

Illinois Environmental Protection Agency
Bureau of Land (#24)
Attn: Annual Reports and Data Collection Unit
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

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CERTIFICATE OF ANALYSIS

L9L0923

Southern Illinois Power Coop.
Jason McLaurin
11543 Lake of Egypt Road
Marion, IL 62959

Date Reported	01/02/2020
Date Due	01/09/2020
Date Received	12/19/2019
Customer #	E5660

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 01 Well C-1												Sampled 12/14/2019 @ 10:12	
Sampled By Ted Meriwether													
Chloride			380	mg/L	5			EPA 300.0	2.5			12/24/2019 14:32	LJC
Sulfate			300	mg/L	5			EPA 300.0	2.5			12/24/2019 14:32	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 4:18	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 4:18	JSW
Iron			0.38	mg/L	1			EPA 200.7	0.020			12/31/2019 4:18	JSW
Sample: 02 Well C-2												Sampled 12/14/2019 @ 9:57	
Sampled By Ted Meriwether													
Chloride			3.9	mg/L	5			EPA 300.0	2.5			12/24/2019 14:46	LJC
Sulfate			220	mg/L	5			EPA 300.0	2.5			12/24/2019 14:46	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 4:24	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 4:24	JSW
Iron			17	mg/L	1			EPA 200.7	0.020			12/31/2019 4:24	JSW
Sample: 03 Well C-3												Sampled 12/14/2019 @ 12:29	
Sampled By Ted Meriwether													
Chloride			570	mg/L	5			EPA 300.0	2.5			12/24/2019 15:00	LJC
Sulfate			66	mg/L	5			EPA 300.0	2.5			12/24/2019 15:00	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 4:31	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 4:31	JSW
Iron			0.60	mg/L	1			EPA 200.7	0.020			12/31/2019 4:31	JSW
Sample: 04 Well S-2												Sampled 12/14/2019 @ 11:20	
Sampled By Ted Meriwether													
Chloride			440	mg/L	5			EPA 300.0	2.5			12/24/2019 15:13	LJC
Sulfate			150	mg/L	5			EPA 300.0	2.5			12/24/2019 15:13	LJC
Boron			2.2	mg/L	1			EPA 200.7	0.50			12/31/2019 4:50	JSW
Cadmium			0.0078	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 4:50	JSW
Iron			210	mg/L	50			EPA 200.7	1.0			12/31/2019 17:09	JSW

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L9L0923

Southern Illinois Power Coop.
Jason McLaurin

Date Due 01/09/2020
Date Received 12/19/2019

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 05	**Well S-3**											**Sampled** 12/14/2019 @ 10:57	
Sampled By	Ted Meriwether												
Chloride			110	mg/L	5			EPA 300.0	2.5			12/24/2019 15:27	LJC
Sulfate			18	mg/L	5			EPA 300.0	2.5			12/24/2019 15:27	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 4:57	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 4:57	JSW
Iron			36	mg/L	1			EPA 200.7	0.020			12/31/2019 4:57	JSW
Sample: 06	**Well S-4**											**Sampled** 12/14/2019 @ 10:30	
Sampled By	Ted Meriwether												
Chloride			20	mg/L	5			EPA 300.0	2.5			12/24/2019 15:41	LJC
Sulfate			45	mg/L	5			EPA 300.0	2.5			12/24/2019 15:41	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 5:03	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 5:03	JSW
Iron			2.2	mg/L	1			EPA 200.7	0.020			12/31/2019 5:03	JSW
Sample: 07	**Well S-5**											**Sampled** 12/14/2019 @ 9:43	
Sampled By	Ted Meriwether												
Chloride			31	mg/L	5			EPA 300.0	2.5			12/24/2019 15:54	LJC
Sulfate			230	mg/L	5			EPA 300.0	2.5			12/24/2019 15:54	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 5:09	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 5:09	JSW
Iron			0.69	mg/L	1			EPA 200.7	0.020			12/31/2019 5:09	JSW
Sample: 08	**Well S-6**											**Sampled** 12/14/2019 @ 12:47	
Sampled By	Ted Meriwether												
Chloride			25	mg/L	5			EPA 300.0	2.5			12/24/2019 16:08	LJC
Sulfate			64	mg/L	5			EPA 300.0	2.5			12/24/2019 16:08	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 5:15	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 5:15	JSW
Iron			9.2	mg/L	1			EPA 200.7	0.020			12/31/2019 5:15	JSW
Sample: 09	**Well S-1 Swamp**											**Sampled** 12/14/2019 @ 11:54	
Sampled By	Ted Meriwether												

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CERTIFICATE OF ANALYSIS

L9L0923

Southern Illinois Power Coop.
Jason McLaurin

Date Due 01/09/2020
Date Received 12/19/2019

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 09 **Well S-1 Swamp**												Sampled 12/14/2019 @ 11:54	
Sampled By Ted Meriwether													
Chloride			7.0	mg/L	5			EPA 300.0	2.5			12/24/2019 17:02	LJC
Sulfate			26	mg/L	5			EPA 300.0	2.5			12/24/2019 17:02	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			12/31/2019 5:22	JSW
Cadmium			0.0089	mg/L	1			EPA 200.7	0.010	0.002	0.00050	12/31/2019 5:22	JSW
Iron			16	mg/L	1			EPA 200.7	0.020			12/31/2019 5:22	JSW

Qualifier Definitions

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

AL MOORE
Field Manager
Reported: 01/02/2020 16:39

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CERTIFICATE OF ANALYSIS

L9I0556

Southern Illinois Power Coop.
Jason McLaurin
11543 Lake of Egypt Road
Marion, IL 62959

Date Reported	09/19/2019
Date Due	10/02/2019
Date Received	09/12/2019
Customer #	E5660

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 01 Well C-1												**Sampled 09/12/2019@ 13:00**	
Sampled By Ted Meriwether													
Chloride			300	mg/L	5			EPA 300.0	2.5			09/17/2019 2:30	LJC
Sulfate			300	mg/L	5			EPA 300.0	2.5			09/17/2019 2:30	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 18:57	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 18:57	JSW
Iron			0.86	mg/L	1			EPA 200.7	0.020			09/16/2019 18:57	JSW
Sample: 02 Well C-2												**Sampled 09/12/2019@ 13:20**	
Sampled By Ted Meriwether													
Chloride			23	mg/L	5			EPA 300.0	2.5			09/17/2019 2:44	LJC
Sulfate			120	mg/L	5			EPA 300.0	2.5			09/17/2019 2:44	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 19:04	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 19:04	JSW
Iron			12	mg/L	1			EPA 200.7	0.020			09/16/2019 19:04	JSW
Sample: 03 Well C-3												**Sampled 09/12/2019@ 12:15**	
Sampled By Ted Meriwether													
Chloride			460	mg/L	5			EPA 300.0	2.5			09/17/2019 2:57	LJC
Sulfate			82	mg/L	5			EPA 300.0	2.5			09/17/2019 2:57	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 19:10	JSW
Cadmium			0.0028	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 19:10	JSW
Iron			1.3	mg/L	1			EPA 200.7	0.020			09/16/2019 19:10	JSW
Sample: 04 Well S-2												**Sampled 09/12/2019@ 11:25**	
Sampled By Ted Meriwether													
Chloride			350	mg/L	5			EPA 300.0	2.5			09/17/2019 3:11	LJC
Sulfate			88	mg/L	5			EPA 300.0	2.5			09/17/2019 3:11	LJC
Boron			0.94	mg/L	1			EPA 200.7	0.50			09/16/2019 19:16	JSW
Cadmium			0.0045	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 19:16	JSW
Iron			200	mg/L	50			EPA 200.7	1.0			09/17/2019 17:33	JSW

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Southern Illinois Power Coop.
Jason McLaurin

Date Due 10/02/2019
Date Received 09/12/2019

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 05 Well S-3												**Sampled** 09/12/2019 @ 11:07	
Sampled By Ted Meriwether													
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 22:26	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 22:26	JSW
Iron			64	mg/L	10			EPA 200.7	0.20			09/17/2019 18:10	JSW
Sample: 06 Well S-4												**Sampled** 09/12/2019 @ 10:55	
Sampled By Ted Meriwether													
Chloride			22	mg/L	5			EPA 300.0	2.5			09/17/2019 3:25	LJC
Sulfate			43	mg/L	5			EPA 300.0	2.5			09/17/2019 3:25	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 22:44	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 22:44	JSW
Iron			19	mg/L	1			EPA 200.7	0.020			09/16/2019 22:44	JSW
Sample: 07 Well S-5												**Sampled** 09/12/2019 @ 13:35	
Sampled By Ted Meriwether													
Chloride			34	mg/L	5			EPA 300.0	2.5			09/17/2019 3:38	LJC
Sulfate			230	mg/L	5			EPA 300.0	2.5			09/17/2019 3:38	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 22:50	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 22:50	JSW
Iron			3.0	mg/L	1			EPA 200.7	0.020			09/16/2019 22:50	JSW
Sample: 08 Well S-6												**Sampled** 09/12/2019 @ 12:45	
Sampled By Ted Meriwether													
Chloride			24	mg/L	5			EPA 300.0	2.5			09/17/2019 3:52	LJC
Sulfate			65	mg/L	5			EPA 300.0	2.5			09/17/2019 3:52	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 22:56	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 22:56	JSW
Iron			9.1	mg/L	1			EPA 200.7	0.020			09/16/2019 22:56	JSW
Sample: 09 Well S-1 Swamp												**Sampled** 09/12/2019 @ 11:50	
Sampled By Ted Meriwether													
Chloride			6.1	mg/L	5			EPA 300.0	2.5			09/17/2019 4:06	LJC
Sulfate			21	mg/L	5			EPA 300.0	2.5			09/17/2019 4:06	LJC

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Southern Illinois Power Coop.
Jason McLaurin

Date Due 10/02/2019
Date Received 09/12/2019

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 09 **Well S-1 Swamp**												Sampled 09/12/2019 @ 11:50	
Sampled By Ted Meriwether													
Boron			<0.50	mg/L	1			EPA 200.7	0.50			09/16/2019 23:03	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	09/16/2019 23:03	JSW
Iron			33	mg/L	1			EPA 200.7	0.020			09/16/2019 23:03	JSW
Sample: 10 **Well S-3 Repull due to sample being broke in lab.**												Sampled 09/17/2019 @ 12:30	
Sampled By Ted Meriwether													
Chloride			140	mg/L	5			EPA 300.0	2.5			09/18/2019 16:07	LJC
Sulfate			17	mg/L	5			EPA 300.0	2.5			09/18/2019 16:07	LJC

Qualifier Definitions

Report Comments

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Reviewed and Approved By:

David Richardson

David Richardson
Field Services Tech Paducah
Reported: 09/19/2019 16:34

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L9F0808

Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 04 S-1											Sampled 06/13/2019 @ 11:22	
Sampled By Ted Meriwether/Mike Gribbin												
Lead			6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 22:52	JGF
Manganese			390	ug/L	2			EPA 200.8	100	0.21	06/14/2019 22:52	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 22:52	JGF
Selenium			<1.0	ug/L	2			EPA 200.8	1.0		06/14/2019 22:52	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 22:52	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 22:52	JGF
Vanadium			13	ug/L	2			EPA 200.8	10		06/14/2019 22:52	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 22:52	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:10	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/18/2019 12:21	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL
Sample: 05 S-2											Sampled 06/13/2019 @ 11:49	
Sampled By Ted Meriwether/Mike Gribbin												
pH - Field			6.06	SU	1			SM 4500 H+ B	1.00		06/13/2019 11:49	TWM
Temperature at pH - Field			16.8	deg C	1			SM 2550B			06/13/2019 11:49	TWM
Solids, Dissolved			190	mg/L	1			SM 2540C	10		06/17/2019 17:00	MGM
Chloride			380	mg/L	7			EPA 300.0	3.5		06/15/2019 1:35	LJC
Fluoride			<0.50	mg/L	1			EPA 300.0	0.50		06/14/2019 16:47	LJC
Nitrogen, Nitrate			<0.11	mg/L	1			EPA 300.0	0.11		06/14/2019 16:47	LJC
Sulfate			130	mg/L	7			EPA 300.0	3.5		06/15/2019 1:35	LJC
Antimony			<1.6	ug/L	2			EPA 200.8	12	1.6	06/14/2019 22:58	JGF
Arsenic			<2.0	ug/L	2			EPA 200.8	300	2.0	06/14/2019 22:58	JGF
Barium			970	ug/L	2			EPA 200.8	200		06/14/2019 22:58	JGF
Beryllium			<0.15	ug/L	2			EPA 200.8	8.0	0.15	06/14/2019 22:58	JGF
Boron			2.2	mg/L	1			EPA 200.7	0.50		06/18/2019 7:25	JSW
Cadmium			<0.54	ug/L	2			EPA 200.8	0.54		06/14/2019 22:58	JGF
Chromium			<14	ug/L	2			EPA 200.8	14		06/14/2019 22:58	JGF

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Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 05 **S-2**											Sampled 06/13/2019 @ 11:49	
Sampled By Ted Meriwether/Mike Gribbin												
Cobalt			<10	ug/L	2			EPA 200.8	10		06/14/2019 22:56	JGF
Copper			<8.6	ug/L	2			EPA 200.8	8.6		06/14/2019 22:58	JGF
Iron			140000	ug/L	2			EPA 200.8	2000		06/14/2019 22:58	JGF
Lead			<6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 22:58	JGF
Manganese			18000	ug/L	2			EPA 200.8	100	0.21	06/14/2019 22:58	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 22:58	JGF
Selenium			17	ug/L	2			EPA 200.8	1.0		06/14/2019 22:58	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 22:58	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 22:58	JGF
Vanadium			<10	ug/L	2			EPA 200.8	10		06/14/2019 22:58	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 22:58	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:11	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/18/2019 12:23	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL
Sample: 06 **S-3**											Sampled 06/13/2019 @ 12:07	
Sampled By Ted Meriwether/Mike Gribbin												
pH - Field			6.28	SU	1			SM 4500 H+ B	1.00		06/13/2019 12:07	TWM
Temperature at pH - Field			16.9	deg C	1			SM 2550B			06/13/2019 12:07	TWM
Solids, Dissolved			290	mg/L	1			SM 2540C	10		06/17/2019 17:00	MGM/I
Chloride			170	mg/L	3			EPA 300.0	1.5		06/15/2019 1:51	LJC
Fluoride			<0.50	mg/L	1			EPA 300.0	0.50		06/14/2019 17:02	LJC
Nitrogen, Nitrate			<0.11	mg/L	1			EPA 300.0	0.11		06/14/2019 17:02	LJC
Sulfate			4.7	mg/L	1			EPA 300.0	0.50		06/14/2019 17:02	LJC
Antimony			<1.6	ug/L	2			EPA 200.8	12	1.6	06/14/2019 23:05	JGF
Arsenic		J	8.9	ug/L	2			EPA 200.8	300	2.0	06/14/2019 23:05	JGF
Barium			330	ug/L	2			EPA 200.8	200		06/14/2019 23:05	JGF
Beryllium			<0.15	ug/L	2			EPA 200.8	8.0	0.15	06/14/2019 23:05	JGF

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CERTIFICATE OF ANALYSIS

L9F0808

Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 06 S-3											Sampled 06/13/2019 @ 12:07	
Sampled By Ted Meriwether/Mike Gribbin												
Boron			<0.50	mg/L	1			EPA 200.7	0.50		06/18/2019 7:32	JSW
Cadmium			<0.54	ug/L	2			EPA 200.8	0.54		06/14/2019 23:05	JGF
Chromium			<14	ug/L	2			EPA 200.8	14		06/14/2019 23:05	JGF
Cobalt			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:05	JGF
Copper			<8.6	ug/L	2			EPA 200.8	8.6		06/14/2019 23:05	JGF
Iron			57000	ug/L	2			EPA 200.8	2000		06/14/2019 23:05	JGF
Lead			<6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 23:05	JGF
Manganese			3500	ug/L	2			EPA 200.8	100	0.21	06/14/2019 23:05	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 23:05	JGF
Selenium			3.0	ug/L	2			EPA 200.8	1.0		06/14/2019 23:05	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 23:05	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 23:05	JGF
Vanadium			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:05	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 23:05	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:17	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/18/2019 12:24	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL
Sample: 07 S-4											Sampled 06/13/2019 @ 10:55	
Sampled By Ted Meriwether/Mike Gribbin												
pH - Field			6.72	SU	1			SM 4500 H+ B	1.00		06/13/2019 10:55	TWM
Temperature at pH - Field			16.4	deg C	1			SM 2550B			06/13/2019 10:55	TWM
Solids, Dissolved			160	mg/L	1			SM 2540C	10		06/17/2019 17:00	MGM/I
Chloride			23	mg/L	1			EPA 300.0	0.50		06/14/2019 18:17	LJC
Fluoride			<0.50	mg/L	1			EPA 300.0	0.50		06/14/2019 18:17	LJC
Nitrogen, Nitrate			0.19	mg/L	1			EPA 300.0	0.11		06/14/2019 18:17	LJC
Sulfate			47	mg/L	1			EPA 300.0	0.50		06/14/2019 18:17	LJC
Antimony			<1.6	ug/L	2			EPA 200.8	12	1.6	06/14/2019 23:11	JGF

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Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 07 **S-4**											Sampled 06/13/2019 @ 10:55	
Sampled By Ted Meriwether/Mike Gribbin												
Arsenic			<2.0	ug/L	2			EPA 200.8	300	2.0	06/14/2019 23:11	JGF
Barium			<200	ug/L	2			EPA 200.8	200		06/14/2019 23:11	JGF
Beryllium			<0.15	ug/L	2			EPA 200.8	8.0	0.15	06/14/2019 23:11	JGF
Boron			<0.50	mg/L	1			EPA 200.7	0.50		06/18/2019 7:50	JSW
Cadmium			<0.54	ug/L	2			EPA 200.8	0.54		06/14/2019 23:11	JGF
Chromium			<14	ug/L	2			EPA 200.8	14		06/14/2019 23:11	JGF
Cobalt			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:11	JGF
Copper			<8.6	ug/L	2			EPA 200.8	8.6		06/14/2019 23:11	JGF
Iron			10000	ug/L	2			EPA 200.8	2000		06/14/2019 23:11	JGF
Lead			<6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 23:11	JGF
Manganese		J	44	ug/L	2			EPA 200.8	100	0.21	06/14/2019 23:11	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 23:11	JGF
Selenium			2.1	ug/L	2			EPA 200.8	1.0		06/14/2019 23:11	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 23:11	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 23:11	JGF
Vanadium			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:11	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 23:11	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:19	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/18/2019 12:26	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL
Sample: 08 **S-5**											Sampled 06/13/2019 @ 13:13	
Sampled By Ted Meriwether/Mike Gribbin												
pH - Field			6.22	SU	1			SM 4500 H+ B	1.00		06/13/2019 13:13	TWM
Temperature at pH - Field			17.5	deg C	1			SM 2550B			06/13/2019 13:13	TWM
Solids, Dissolved			76	mg/L	1			SM 2540C	10		06/17/2019 17:00	MGM/I
Chloride			33	mg/L	1			EPA 300.0	0.50		06/14/2019 18:32	LJC
Fluoride			<0.50	mg/L	1			EPA 300.0	0.50		06/14/2019 18:32	LJC

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CERTIFICATE OF ANALYSIS

L9F0808

Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 08 **S-5**											Sampled 06/13/2019 @ 13:13	
Sampled By Ted Meriwether/Mike Gribbin												
Nitrogen, Nitrate			0.62	mg/L	1			EPA 300.0	0.11		06/14/2019 18:32	LJC
Sulfate			230	mg/L	5			EPA 300.0	2.5		06/15/2019 2:06	LJC
Antimony			<1.6	ug/L	2			EPA 200.8	12	1.6	06/14/2019 23:17	JGF
Arsenic			<2.0	ug/L	2			EPA 200.8	300	2.0	06/14/2019 23:17	JGF
Barium			<200	ug/L	2			EPA 200.8	200		06/14/2019 23:17	JGF
Beryllium			<0.15	ug/L	2			EPA 200.8	8.0	0.15	06/14/2019 23:17	JGF
Boron			<0.50	mg/L	1			EPA 200.7	0.50		06/18/2019 7:56	JSW
Cadmium			<0.54	ug/L	2			EPA 200.8	0.54		06/14/2019 23:17	JGF
Chromium			<14	ug/L	2			EPA 200.8	14		06/14/2019 23:17	JGF
Cobalt			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:17	JGF
Copper			<8.6	ug/L	2			EPA 200.8	8.6		06/14/2019 23:17	JGF
Iron			<2000	ug/L	2			EPA 200.8	2000		06/14/2019 23:17	JGF
Lead			<6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 23:17	JGF
Manganese		J	33	ug/L	2			EPA 200.8	100	0.21	06/14/2019 23:17	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 23:17	JGF
Selenium			<1.0	ug/L	2			EPA 200.8	1.0		06/14/2019 23:17	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 23:17	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 23:17	JGF
Vanadium			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:17	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 23:17	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:20	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/17/2019 14:34	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL
Sample: 09 **S-6**											Sampled 06/13/2019 @ 12:57	
Sampled By Ted Meriwether/Mike Gribbin												
pH - Field			6.04	SU	1			SM 4500 H+ B	1.00		06/13/2019 12:57	TWM
Temperature at pH - Field			18.5	deg C	1			SM 2550B			06/13/2019 12:57	TWM

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CERTIFICATE OF ANALYSIS

L9F0808

Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	MDL	Analysis Date	Tech
Sample: 09 S-6											Sampled 06/13/2019 @ 12:57	
Sampled By Ted Meriwether/Mike Gribbin												
Solids, Dissolved			220	mg/L	1			SM 2540C	10		06/17/2019 17:00	MGM/
Chloride			25	mg/L	1			EPA 300.0	0.50		06/14/2019 18:47	LJC
Fluoride			<0.50	mg/L	1			EPA 300.0	0.50		06/14/2019 18:47	LJC
Nitrogen, Nitrate			3.4	mg/L	1			EPA 300.0	0.11		06/14/2019 18:47	LJC
Sulfate			67	mg/L	1			EPA 300.0	0.50		06/14/2019 18:47	LJC
Antimony			<1.6	ug/L	2			EPA 200.8	12	1.6	06/14/2019 23:36	JGF
Arsenic			<2.0	ug/L	2			EPA 200.8	300	2.0	06/14/2019 23:36	JGF
Barium			<200	ug/L	2			EPA 200.8	200		06/14/2019 23:36	JGF
Beryllium			<0.15	ug/L	2			EPA 200.8	8.0	0.15	06/14/2019 23:36	JGF
Boron			<0.50	mg/L	1			EPA 200.7	0.50		06/18/2019 6:03	JSW
Cadmium			<0.54	ug/L	2			EPA 200.8	0.54		06/14/2019 23:36	JGF
Chromium			<14	ug/L	2			EPA 200.8	14		06/14/2019 23:36	JGF
Cobalt			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:36	JGF
Copper			<8.6	ug/L	2			EPA 200.8	8.6		06/14/2019 23:36	JGF
Iron			<2000	ug/L	2			EPA 200.8	2000		06/14/2019 23:36	JGF
Lead			<6.2	ug/L	2			EPA 200.8	6.2		06/14/2019 23:36	JGF
Manganese		J	25	ug/L	2			EPA 200.8	100	0.21	06/14/2019 23:36	JGF
Nickel			<100	ug/L	2			EPA 200.8	100		06/14/2019 23:36	JGF
Selenium			<1.0	ug/L	2			EPA 200.8	1.0		06/14/2019 23:36	JGF
Silver		L3	<7.6	ug/L	2			EPA 200.8	7.6		06/14/2019 23:36	JGF
Thallium			<0.94	ug/L	2			EPA 200.8	0.94		06/14/2019 23:36	JGF
Vanadium			<10	ug/L	2			EPA 200.8	10		06/14/2019 23:36	JGF
Zinc		L3	<220	ug/L	2			EPA 200.8	220		06/14/2019 23:36	JGF
Total Mercury by CVAA								EPA 245.1 Rev 3.0				
Mercury			<0.00020	mg/L	1				0.00020		06/20/2019 13:21	CGL
Total Cyanide			<0.0050	mg/L	1			SM 4500-CN C/E-1999	0.0050		06/17/2019 14:39	CGL
Radium 228			<1	pCi/L	1			SM 7500 RA-D	1		07/09/2019 0:00	GEL

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CERTIFICATE OF ANALYSIS

L9F0808

Southern Illinois Power Coop.
Jason McLaurin

Date Due 07/21/2019
Date Received 06/13/2019

Special Quarterly Sampling Jun 2019

Qualifier Definitions
J Estimated value
L3 Lab control sample (LCS) recovery above upper Control Limit, analyte not detected.

The following analyses were subcontracted to a qualified laboratory:

Laboratory	Analysis	Method
GEL Laboratories, LLC	Radium 228	SM 7500 RA-D
Merrillville	Total Cyanide	SM 4500-CN C/E-1999
	Total Mercury by CVAA	EPA 245.1 Rev 3.0
Paducah	pH - Field	SM 4500 H+ B
	Temperature at pH - Field	SM 2550B

Project Requested Certification(s):

Certificate ID	Agency
108202	Kentucky Wastewater Laboratory Certification Program (j)

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: *Al Moore A.M.*

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

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CERTIFICATE OF ANALYSIS

L9C0364

Southern Illinois Power Coop.
Jason McLaurin
11543 Lake of Egypt Road
Marion, IL 62959

Date Reported	03/20/2019
Date Due	03/28/2019
Date Received	03/08/2019
Customer #	E5660

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 01 **Well C-1**												Sampled 03/08/2019 @ 10:10	
Sampled By David Richardson													
Sulfate			300	mg/L	5			EPA 300.0	2.5			03/12/2019 19:41	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 6:24	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 6:24	JSW
Iron			8.2	mg/L	1			EPA 200.7	0.020			03/16/2019 6:24	JSW
Sample: 02 **Well C-2**												Sampled 03/08/2019 @ 10:25	
Sampled By David Richardson													
Sulfate			270	mg/L	5			EPA 300.0	2.5			03/12/2019 19:56	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 6:31	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 6:31	JSW
Iron			15	mg/L	1			EPA 200.7	0.020			03/16/2019 6:31	JSW
Sample: 03 **Well C-3**												Sampled 03/08/2019 @ 10:40	
Sampled By David Richardson													
Sulfate			72	mg/L	5			EPA 300.0	2.5			03/12/2019 20:11	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 6:37	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 6:37	JSW
Iron			1.1	mg/L	1			EPA 200.7	0.020			03/16/2019 6:37	JSW
Sample: 04 **Well S-2**												Sampled 03/08/2019 @ 11:45	
Sampled By David Richardson													
Sulfate			110	mg/L	5			EPA 300.0	2.5			03/12/2019 20:26	LJC
Boron			1.9	mg/L	1			EPA 200.7	0.50			03/16/2019 9:44	JSW
Cadmium			0.0059	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 9:44	JSW
Iron			200	mg/L	50			EPA 200.7	1.0			03/19/2019 21:37	JSW
Sample: 05 **Well S-3**												Sampled 03/08/2019 @ 11:24	
Sampled By David Richardson													
Sulfate			7.0	mg/L	5			EPA 300.0	2.5			03/12/2019 20:41	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 9:51	JSW

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CERTIFICATE OF ANALYSIS

L9C0364

Southern Illinois Power Coop.
Jason McLaurin

Date Due 03/28/2019
Date Received 03/08/2019

Quarterly Well Sampling

Analysis	OOC	Qualifier	Result	Units	DF	Min	Max	Method	Rpt Limit	Cus Limit	MDL	Analysis Date	Tech
Sample: 05 Well S-3												**Sampled** 03/08/2019@ 11:24	
Sampled By David Richardson													
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 9:51	JSW
Iron			49	mg/L	10			EPA 200.7	0.20			03/19/2019 21:43	JSW
Sample: 06 Well S-4												**Sampled** 03/08/2019@ 11:03	
Sampled By David Richardson													
Sulfate			41	mg/L	5			EPA 300.0	2.5			03/12/2019 20:56	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 9:07	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 9:07	JSW
Iron		M3	6.2	mg/L	1			EPA 200.7	0.020			03/16/2019 9:07	JSW
Sample: 07 Well S-5												**Sampled** 03/08/2019@ 9:55	
Sampled By David Richardson													
Sulfate			230	mg/L	5			EPA 300.0	2.5			03/12/2019 21:56	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 9:57	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 9:57	JSW
Iron			2.2	mg/L	1			EPA 200.7	0.020			03/16/2019 9:57	JSW
Sample: 08 Well S-6												**Sampled** 03/08/2019@ 12:45	
Sampled By David Richardson													
Sulfate			61	mg/L	5			EPA 300.0	2.5			03/12/2019 22:11	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 10:03	JSW
Cadmium			0.0037	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 10:03	JSW
Iron			1.0	mg/L	1			EPA 200.7	0.020			03/16/2019 10:03	JSW
Sample: 09 Well S-1 Swamp												**Sampled** 03/08/2019@ 12:15	
Sampled By David Richardson													
Sulfate			21	mg/L	5			EPA 300.0	2.5			03/12/2019 22:26	LJC
Boron			<0.50	mg/L	1			EPA 200.7	0.50			03/16/2019 10:09	JSW
Cadmium			<0.002	mg/L	1			EPA 200.7	0.010	0.002	0.00050	03/16/2019 10:09	JSW
Iron			14	mg/L	1			EPA 200.7	0.020			03/16/2019 10:09	JSW

Qualifier Definitions

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CERTIFICATE OF ANALYSIS

L9C0364

Southern Illinois Power Coop.
Jason McLaurin

Date Due	03/28/2019
Date Received	03/08/2019

Quarterly Well Sampling

M3 Analyte in the parent sample for the Matrix Spike was >4x the concentration of the spike solution which renders the spike amount insignificant. Matrix spike recoveries do not impact the quality of the parent sample data for this analyte.

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: *Al Moore A.M.*

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

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SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 45

COMPLETED DATE: 8-27-09

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	ILD007813900			**BOL ID #:**	1990555005
Facility Name:	Southern Illinois Power CO-OP			**Phone #:**	618-964-1448
Location	11543 Lake Egypt Rd			**County:**	Williamson
City:	Marion	**State:**	Illinois	**Zip Code:**	62959
Region:	Marion	**Inspection Date:**	8-24-09	**Time:**	1:15 pm.
Weather:	Sunny .80s				

FACILITY TYPE

Notified As:	SQG	**Regulated As:**	SQG

INSPECTION TYPE

CEI: ☒ **GME:** ☐ **OAM:** ☐ **NRR:** ☐ **CSE:** ☐ **CAO:** ☐ **FUI to:**

FCI (Other): **CCI:** ☐ **CSI:** ☐

NOTIFICATION DATES (EPA 8700-12)

Initial:	5-27-1997	**Subsequent:**	3-01-07

PART A PERMIT DATES (EPA 3510-3 OR EPA 8700-23)

Initial:	**Amended:**	**Withdrawn:**

PART B PERMIT

(Check one if applicable) Application Submitted? ☐ **Permit Issued?** ☐ **Date:**

ACTIVE ENFORCEMENT

Date facility referred to:	**USEPA:**	**IAGO:**	**County State's Attorney:**

ACTIVE ENFORCEMENT ORDERS

CACO:	**CAFO:**	**Federal Court Order:**
Consent Decree:	**IPCB Order:**	**State Court Order:**

TSD Facility Activity Summary

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

Owner		Operator	
Name:	Southern Illinois Power Co-op	**Name:**	same
Address:	11543 Lake Of Egypt Rd	**Address:**	
City:	Marion	**City:**	
State:	IL. **Zip Code:** 62959	**State:**	**Zip Code:**
Phone #:	618-964-1448	**Phone #:**	

Person(s) Interviewed	Title	Phone #
Jason McLaurin	Environmental Coordinator	618-964-1448

Inspection Participants	Agency/Bureau	Phone #
Tom Edmondson *	IEPA	618-993-7200

***Report prepared by this person.**

Summary of Apparent Violations

Section	X	Section	X	Section	X
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐

X = Continuing Violations

LD
9-17-2499

RCRA Violations Checklist for CESQGs, SQGs, and Transporters

IEPA #: 1990555005 *Inspection Date: 8/24/2009*

Section	V	C	R
CESQG Requirements	***NA***		
Part 721			
721.102(f)	☐	☐	☐

CESQG Requirements for Exclusion from Regulation – Mark the checkboxes of any unmet exclusion criteria, but cite the resulting violations under the SQG Requirements.

Part 721
- ☐ 721.105(a)
- ☐ 721.105(e)
- ☐ 721.105(f)
- ☐ 721.105(g)

Part 722
- ☐ 722.111

Section	V	C	R
Part 808 – Special Waste Determination			
808.121(a)	☐	☐	☐
SQG Requirements			
Part 722			
722.111	☐	☐	☐
722.112(a)	☐	☐	☐
722.112(c)	☐	☐	☐
722.120(a)	☐	☐	☐
722.120(b)	☐	☐	☐
722.120(d)	☐	☐	☐
722.120(e)	☐	☐	☐
722.121(g)	☐	☐	☐
722.122	☐	☐	☐
722.123(a)	☐	☐	☐
722.123(b)	☐	☐	☐
722.123(c)	☐	☐	☐
722.134(m)	☐	☐	☐
722.140(a)	☐	☐	☐
722.140(c)	☐	☐	☐
722.140(d)	☐	☐	☐
722.142(b)	☐	☐	☐
722.143	☐	☐	☐
Part 728			
728.107(a)(10)	☐	☐	☐
Part 808 – Special Waste Determination			
808.121(a)	☐	☐	☐

SQG Permit Exemption Criteria

The generator must comply with certain sections of Parts 722, 725, and 728. Mark the checkboxes of any unmet criteria, but cite the violation as 703.121(a) and (b), not as the unmet criteria.

Section	V	C	R
703.121(a)	☐	☐	☐
703.121(b)	☐	☐	☐

Part 722
- ☐ 722.134(a)(2)
- ☐ 722.134(a)(3)
- ☐ 722.134(c)
- ☐ 722.134(d)
- ☐ 722.134(d)(5)

Part 725
- ☐ 725.131
- ☐ 725.132
- ☐ 725.133
- ☐ 725.134
- ☐ 725.135
- ☐ 725.137
- ☐ 725.271
- ☐ 725.272
- ☐ 725.273(a)
- ☐ 725.273(b)
- ☐ 725.274
- ☐ 725.277
- ☐ 725.301(b)(1)
- ☐ 725.301(b)(2)
- ☐ 725.301(b)(3)
- ☐ 725.301(b)(4)
- ☐ 725.301(c)
- ☐ 725.301(d)
- ☐ 725.301(e)
- ☐ 725.301(f)

Part 728
- ☐ 728.107(a)(5)

Section	V	C	R
Transporter Requirements	***NA***		
Part 723			
723.111	☐	☐	☐
723.112	☐	☐	☐
723.120(a)	☐	☐	☐
723.120(b)	☐	☐	☐
723.120(c)	☐	☐	☐
723.120(d)	☐	☐	☐
723.120(e)	☐	☐	☐
723.120(f)	☐	☐	☐
723.120(g)	☐	☐	☐
723.120(h)	☐	☐	☐
723.121(a)	☐	☐	☐
723.121(b)	☐	☐	☐
723.122(a)	☐	☐	☐
723.122(b)	☐	☐	☐
723.122(c)	☐	☐	☐
723.122(d)	☐	☐	☐
723.122(e)	☐	☐	☐
723.130	☐	☐	☐
723.131	☐	☐	☐

Additional Requirements for CESQGs, SQGs and Transporters

	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
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	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

V = Violation Observed; C = Continuing; R = Resolved | **NA = Not Applicable; NE = Not Evaluated**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY **Memorandum**

DATE: August 27, 2009

TO: Land Division File

FROM: Tom Edmondson, DLPC/FOS Marion

SUBJECT: #1990555005 – Williamson County
Southern Illinois Power Co-Op
ILD 007813900

A Compliance Evaluation Inspection (CEI) was conducted by this author on August 24, 2009, at 1:15 p.m. at the Southern Illinois Power Co-Op power plant. I met with Jason McLaurin the Environmental Coordinator at the power plant. This inspection consisted of a review of paper work and a tour of the areas where wastes were generated and kept. A photo was taken during the tour.

The only time hazardous wastes are generated at the plant is when they have line breakage or for some reason they have an emergency shut down for an extended time and the last time that happened was in 2006. They do have one parts washer and it is a citric based material and mineral spirits with a flash point of 201°F. There have been no shipments from this parts washing in over four years. The only manifest waste that they have is used oil that is generated in the spring and fall of each year from changing the machine oil out. This oil is sold to First American Recovery in Paducah, Kentucky.

No violations were noted at this time and the plant seems to be in compliance and is regulated as a SQG.

TDE:jkb/4104l/08-26-09

Regulation	RCRA SMALL QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
	PART 722: STANDARDS APPLICABLE TO SMALL-QUANTITY GENERATORS OF HAZARDOUS WASTE (100 - 1000 KG/MO.)	
	SUBPART A: GENERAL	
	Section 722.111 Hazardous Waste Determination	
722.111	Has the generator correctly determined if the solid waste(s) it generates is a hazardous waste? Yes X No N/A	
	Have hazardous wastes been identified for purposes of compliance with Part 728? Yes X No N/A	722.111
808.121(a)	Has the generator correctly determined if the solid waste it generates is a special waste? Yes X No N/A	808.121(a)
	Section 722.112 USEPA Identification Numbers	
722.112(a)	Has the generator obtained a USEPA identification number? Yes X No N/A	722.112(a)
722.112(c)	Has the generator offered its hazardous waste only to transporters or to treatment, storage or disposal facilities that have a USEPA identification number? Yes X No N/A	722.112(c)
	SUBPART B: THE MANIFEST	
	Section 722.120 General Requirements	
722.120(a)	Does the facility manifest its waste off-site? Yes X No N/A	
	If "No", proceed to Section 722.120(e).	722.120(a)
722.120(b)	Does the manifest designate a facility permitted to handle the waste? Yes X No N/A	722.120(b)
722.120(d)	Has the generator shipped any waste that could not be delivered to the designated facility? Yes No X N/A	722.120(d)
722.120(e)	Does the generator reclaim waste through a contractual agreement with a recycling facility in which: - the type of waste and frequency of shipments are specified in the agreement? Yes No X N/A - the vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste? Yes No N/A X - the generator has maintained a copy of the agreement for 3 years after termination or expiration of the agreement? Yes No N/A X	722.120(e)
728.107(a)(10)	Has a small-quantity generator with a tolling (contractual) agreement pursuant to Section 722.120(e) retained on site a copy of the notification and certification of the initial waste shipment together with the tolling agreement for at least 3 **years** after the termination or expiration of the agreement? Yes No N/A X	728.107(a)(10)
	Section 722.121 Acquisition of Manifests	
722.121(a)	Has the generator used: - an Illinois manifest for wastes designated to a facility within Illinois? Yes X No N/A	722.121(a)
722.121(b)	- a manifest from the State to which the manifest is designated? Yes X No N/A - an Illinois manifest if the State to which the waste is designated has no manifest of its own? Yes X No N/A	722.121(b)
	Section 722.122 Number of Copies	
722.122	Does the manifest consist of at least 6 copies? Yes X No N/A	722.122

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Regulation	RCRA SMALL QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
	Section 722.123 Use of the Manifest	
722.123(a)	For each manifest reviewed, has the generator: - signed the certificate by hand? Yes X No N/A	
	- obtained the handwritten signature and the date of acceptance by the initial transporter? Yes X No N/A	722.123(a)
	- retained one copy as required by Section 722.140(a)? Yes X No N/A	
	- apparently sent a copy (part 5 for the Illinois manifest) to the Agency within 2 working days? Yes X No N/A	
722.123(b)	- has the generator apparently given the remaining copies to the transporter? Yes X No N/A	722.123(b)
722.123(c)	- has the generator followed the procedures prescribed in Section 722.123 for manifesting bulk shipments of hazardous waste by rail or water? Yes No N/A X	722.123(c)
	SUBPART C: PRE-TRANSPORT REQUIREMENTS	
	Is there any hazardous waste ready for transport off-site? Yes No X N/A	
	If so, is the generator complying with the pre-transport requirements in Subpart C? Yes No N/A X	
	Section 722.134 Accumulation Time	
(722.134(c))	Is the generator who accumulates hazardous waste at or near any point of generation where wastes initially accumulate and which is under the control of the operator of the process generating the waste, limiting such accumulation to 55 gallons of hazardous waste or 1 quart of **acutely** hazardous waste, complying with Sections 725.271, 725.272 and 725.273(a), and marking the containers with the words "Hazardous Waste" or other words to identify the contents? Yes No N/A X	
	Has the generator who accumulates more than 55 gallons of hazardous waste or 1 quart of **acutely** hazardous waste complied with the requirements of Section 722.134(a) within 3 working days? Yes No N/A X	
	If there are more than 55 gallons of hazardous waste or 1 quart of **acutely** hazardous waste in the satellite accumulation area, are the containers marked with the date accumulation began? Yes No N/A X	
	During the 3 day period, is the generator continuing to comply with the requirements of Section 722.134(c)(1) with respect to the excess waste? Yes No N/A Y	
(722.134(d))	Has the generator complied with the following requirements: Yes No N/A X	
	Note: If the quantity of hazardous waste on-site ever exceeds 6000 kg, the facility is also a storage facility subject to full regulation under Parts 724 and 725 and the permit requirements under Part 703.	
	Does the facility accumulate hazardous waste in containers? Yes No N/A X	
	If "No", go to Subpart J.	
	SUBPART I: USE AND MANAGEMENT OF CONTAINERS	
(722.134(a)(2))	Is the accumulation start date marked on each container? Yes No N/A	
(722.134(a)(3))	Is each container marked with the words "Hazardous Waste"? Yes No N/A	
(725.271)	If the containers have leaked or are in poor condition, has the owner/operator transferred the hazardous waste to a suitable container? Yes No N/A	

Regulation	RCRA SMALL QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
(725.272)	Is the waste compatible with the container and/or liner? Yes_____ No_____ N/A_____	
(725.273(a))	Are containers of hazardous waste always closed except to remove or add waste during accumulation? Yes_____ No_____ N/A_____	
(725.273(b))	Are containers of hazardous waste being opened, handled, or stored in a manner which will prevent the rupture of the container or prevent it from leaking? Yes_____ No_____ N/A_____	
(725.274)	Is the owner/operator inspecting the accumulation area(s) at least weekly, looking for leaks or deterioration? Yes_____ No_____ N/A_____ Is the accumulation area free from any evidence of leaking or deteriorating containers? (See also Section 725.131) Yes_____ No_____ N/A_____	
(725.277)	Is the owner/operator complying with the requirements concerning incompatible wastes? Yes_____ No_____ N/A_____ Does the generator accumulate and/or treat hazardous waste in tanks? Yes_____ No_____ N/A_____	
	Note: If "No", go to Subpart C.	
	COMMENTS:	
	SUBPART J: TANK SYSTEMS	
	Section 725.301 Generators of 100 to 1000 kg/mo.	
(722.134(a)(2))	Is each tank marked with the words "Hazardous Waste"? Yes_____ No_____ N/A_____	
(725.301(b)(1))	Is the generator in compliance with the treatment or storage of hazardous waste in tanks as referenced in Section 725.117(b)? Yes_____ No_____ N/A_____	
(725.301(b)(2))	Have hazardous wastes or treatment reagents been placed in a tank causing the tank or its inner liner to rupture, leak, corrode or otherwise fail before the end of its intended life? Yes_____ No_____ N/A_____	
(725.301(b)(3))	Unless a tank is equipped with drainage control or a diversion structure, do any uncovered tanks have at least 2 feet of freeboard? Yes_____ No_____ N/A_____	
(725.301(b)(4))	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow (i.e. waste feed cutoff system or by-pass system to a stand-by tank)? Yes_____ No_____ N/A_____	

Regulation	RCRA SMALL QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
(725.301(c))	Is the generator inspecting, where present, the following: 1) discharge control equipment at least once each operating day? Yes_____ No_____ N/A_____ 2) data from monitoring equipment at least once each operating day? Yes_____ No_____ N/A_____ 3) the level of the waste in the tank at least once each operating day? Yes_____ No_____ N/A_____ 4) physical evidence of corrosion at least weekly? Yes_____ No_____ N/A_____ 5) discharge confinement structures to detect erosion or leaking at least weekly? Yes_____ No_____ N/A_____	
(725.301(d))	Has the generator removed all hazardous waste from tanks and associated equipment and structures upon closure of the facility? Yes_____ No_____ N/A_____	
(725.301(e))	If ignitable or reactive wastes are stored in tanks, is the generator in compliance with Section 725.301(e)? Yes_____ No_____ N/A_____	
(725.301(f))	Is the generator in compliance with the regulations concerning incompatible wastes in Section 725.301(f)? Yes_____ No_____ N/A_____	
	COMMENTS:	
	SUBPART C: PREPAREDNESS AND PREVENTION	
(725.131)	Is the facility being operated and maintained to minimize the possibility of a fire, explosion or any release of hazardous waste or hazardous waste constituents which could threaten human health or the environment? Yes_____ No_____ N/A_____	
(725.132)	Is the facility equipped with the following if necessary: a) an internal communication or alarm system(s)? Yes_____ No_____ N/A_____ b) a telephone or other device to summon emergency assistance from local authorities? Yes_____ No_____ N/A_____ c) portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment? Yes_____ No_____ N/A_____ d) water at adequate volume and pressure for fire control? Yes_____ No_____ N/A_____	
(725.133)	Is the facility testing and maintaining communication/alarm systems, fire protection equipment, spill control equipment and decontamination equipment? Yes_____ No_____ N/A_____	
(725.134)	a) Where hazardous waste is being handled, do all employees have immediate access to an internal alarm or other emergency communication device? Yes_____ No_____ N/A_____ b) If there is ever just one employee on the premises when the facility is operating, does he/she have immediate access to a device capable of summoning external emergency assistance? Yes_____ No_____ N/A_____	
(725.135)	Is the facility maintaining adequate aisle space? Yes_____ No_____ N/A_____	

Regulation	RCRA SMALL-QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
(725.137)	Has the facility attempted to make the following arrangements, as appropriate, for the type of facility and waste: - arrangements with local emergency authorities (i.e. police and fire departments, other emergency response agencies) to familiarize them with the layout of the facility, properties of hazardous waste handled, places where facility personnel would be working, entrances to roads inside the facility and evacuation routes? Yes X No____ N/A____ - agreements designating the primary authority where more than one police or fire department might respond? Yes X No____ N/A____ - agreements with State emergency response teams, contractors and equipment suppliers? Yes____ No____ N/A X - arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the type of injuries or illnesses which could result from fires, explosions or releases at the facility? Yes X No____ N/A____	
	Section 728.107 Waste Analysis and Recordkeeping	
(728.107(a)(5))	Has the generator who treats a prohibited waste in tanks or containers in order to meet the treatment standards developed and followed a waste analysis plan? Yes____ No____ N/A____ Is the plan on-site? Yes____ No____ N/A____ Does the plan include a detailed physical and chemical analysis? Yes____ No____ N/A____ Has the plan been filed with the Agency at least 30 days prior to commencement of treatment activity? Yes____ No____ N/A____ Has the generator submitted the required notification and certification that the waste meets treatment standards when the waste is shipped off-site? Yes____ No____ N/A____	
(722.134(d)(5))	A) Is there at least one employee on site or on call with the responsibility to coordinate all emergency response measures? Yes____ No____ N/A____ B) Is the following information posted next to the telephone: - the name and telephone number of the emergency coordinator? Yes____ No____ N/A____ - the location of fire extinguishers and spill control equipment and, if present, fire alarms? Yes____ No____ N/A____ - the number of the fire department unless the facility has a direct alarm? Yes____ No____ N/A____ C) Have employees received the proper waste handling and emergency procedures training relevant to their positions? Yes____ No____ N/A____ D) If there have been any emergencies that required a response, did the emergency coordinator comply with the requirements of Section 722.134(d)(5)(D)? Yes____ No____ N/A____	
	Note: A small-quantity generator who must transport the waste over a distance of 200 miles or more for treatment, storage or disposal may accumulate waste on-site for up to 270 days without a permit provided that the generator complies with the requirements of subsection (d).	
	SUBPART D: RECORDKEEPING AND REPORTING	
	Section 722.140 Recordkeeping	
722.140(a)	Has the generator retained for a period of 3 years: - a copy of each signed manifest? Yes X No____ N/A____	722.140(a)
722.140(c)	Has the generator retained for a period of 3 years: - copies of test results, waste analyses or other determinations made in accordance with Section 722.111? Yes X No____ N/A____	722.140(c)

Regulation	RCRA SMALL QUANTITY GENERATOR INSPECTION CHECKLIST (PART 722)	Violation
722.140(d)	Does a generator who is involved in any unresolved enforcement action or as requested by the Director continue to maintain the records required in subsections a) and c)? Yes_____ No_____ N/A X	722.140(d)
722.142(b)	**Section 722.142 Exception Reporting** Has the generator filed an exception report if a signed copy of the manifest has not been received within 60 days of the date of delivery to the transporter? Yes_____ No_____ N/A X	722.142(b)
722.143	**Section 722.143 Additional Reporting** Has the generator furnished additional reports as required by the Director? Yes_____ No_____ N/A X	722.143
	SUBPART E: EXPORTS OF HAZARDOUS WASTE	
722.150	Is the generator an exporter of hazardous waste? Yes_____ No X N/A_____ If "Yes", has the generator complied with the requirements of Subpart E? Yes_____ No_____ N/A_____	722.150
	SUBPART F: IMPORTS OF HAZARDOUS WASTE	
722.160	Is the generator an importer of hazardous waste? Yes_____ No X N/A_____ If "Yes", has the generator complied with the requirements of Subpart F? Yes_____ No_____ N/A_____	722.160
	SUBPART G: FARMERS	
722.170	Is the generator a farmer? Yes_____ No X N/A_____ If "Yes", has the generator complied with the requirements of Subpart G? Yes_____ No_____ N/A_____	722.170
	COMMENTS:	

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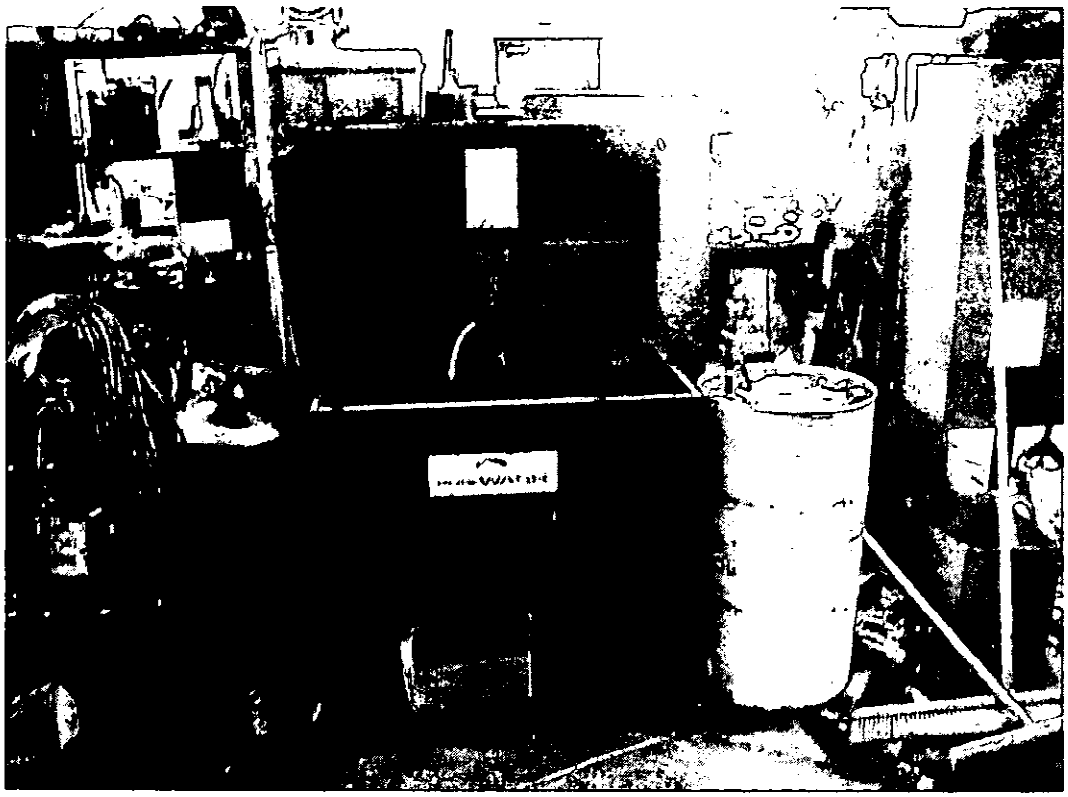
SPECIAL WASTE DISPOSITION FORM

Facility Name:	Southern Illinois Power CO-OP	**USEPA ID #:**	ILD007813900
Inspection Date:	8-24-09	**IEPA ID #:**	1990555005

Wastestream Name:	Waste Oil	Amount On-site:	10 gal
Generation Rate:	1200 to 2200 gal every six months	Last Manifest Date:	5-22-09
Last Analysis Date:	Knowledge of product	Disposition:	sold to First American Recovery
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			
Wastestream Name:		Amount On-site:	
Generation Rate:		Last Manifest Date:	
Last Analysis Date:		Disposition:	
Generating Process:			

DIGITAL PHOTOGRAPHS



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File Names: ~-[Exp. #].jpg

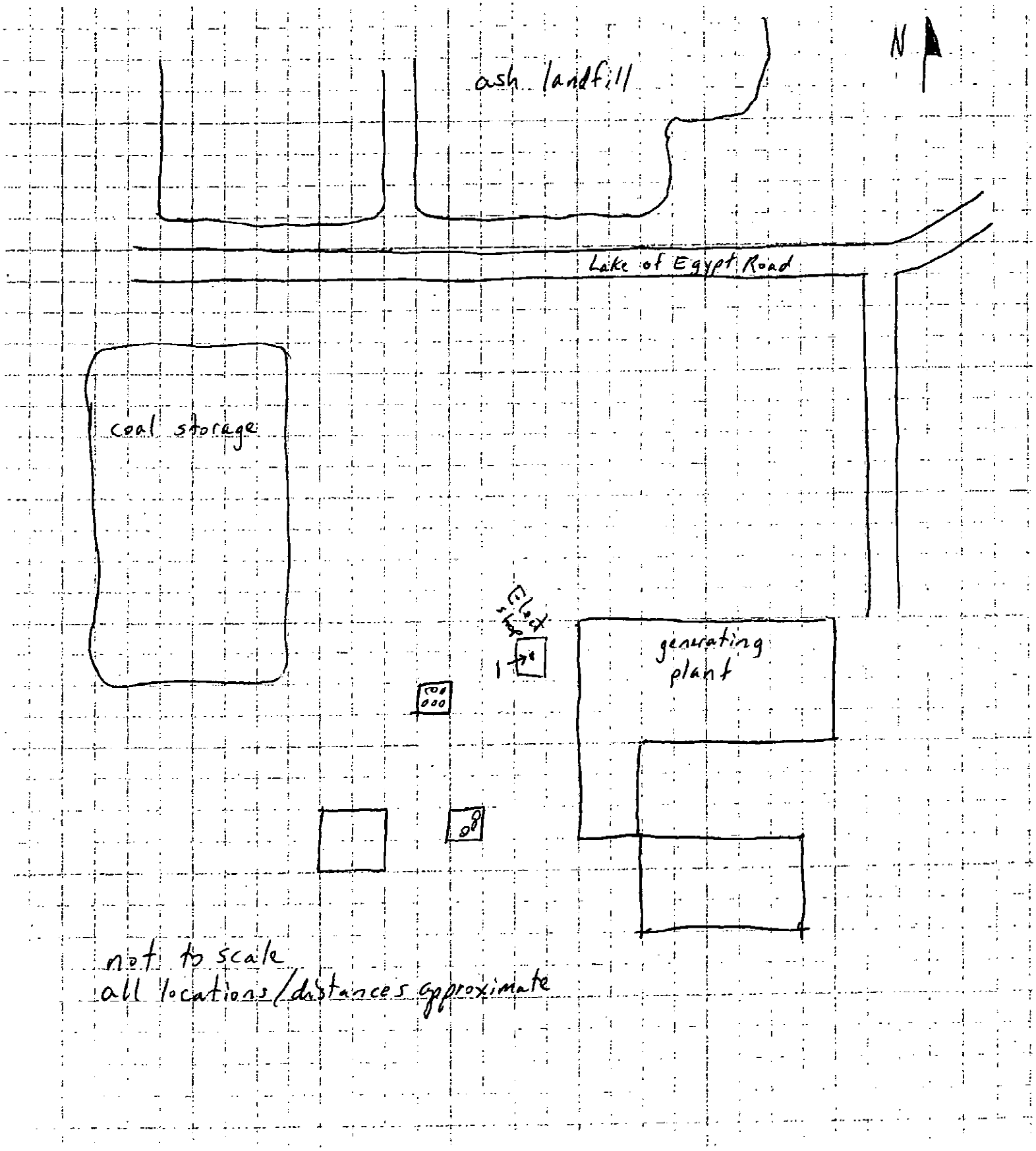
STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357
ADM 39
054-002

Subject 1990555005 - Williamson County

Data Marion / Southern Illinois Power Co-op

Reviewed by ILD001662816 Date Aug 24 2009



Illinois Environmental Protection Agency
Division of Land Pollution Control

RCRA INSPECTION REPORT

USEPA #: IL D001662816 IEPA #: 1990555005

Facility Name: Southern Illinois Power Co-Op Phone #: (618) 964-1448

Street Address: Rt. 4, Box 607 County: Williamson

City: Marion, I State: Illinois Zip: 62959

Region: 7 Inspection Date: 09/13/93 From: 9:30Am To: 2:30Pm

Weather: Cloudy, 75°F

TYPE OF FACILITY

Notified As: Gen-1 Regulated As: Gen-1

LDF? NW (Was on list) HPV? no 90-Day F/U Required?: YES X NO ____

TYPE OF INSPECTION

CEI: X Sampling: ____ Citizen Complaint: ____ Closed: ____ Other: ____

CME/O&M: ____ Record Review: ____ Follow-Up to Inspection of: ____ Withdrawal: ____

NON-REGULATED STATUS

SQG: ____ Claimed Nonhandler: ____ Other (Specify in Narrative): ____

PART A

Notification Date: ___/___/___, from (initial) or (subsequent) Notification.

Initial Part A Date: ___/___/___ Amended: ___/___/___

Part A Withdrawal requested: ___/___/___ Approved by (US)(IL) EPA: ___/___/___

PART B PERMIT APPLICATION

Part B Permit Submitted: Y or (N) ___/___/___ Final Permit Issued: ___/___/___

ENFORCEMENT

Has the firm been referred to -- USEPA: Y or N ___/___/___

Illinois Attorney General: Y or N ___/___/___ County State's Attorney: Y or N ___/___/___

ORDERS ISSUED

CACO: ___/___/___ CAFO: ___/___/___ Consent Decree: ___/___/___

Federal Court Order: ___/___/___ State Court Order: ___/___/___ IPCB Order: ___/___/___

TSD FACILITY ACTIVITY SUMMARY

Activity by Process Code	On Part A?	Activity Conducted Prior to 1980?	Was Activity Ever Done?	Closed	Being done at Time of Insp.?	Exempt per 35 IAC, Sec.	On Annual Report 19	19	19

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OWNER		OPERATOR	
Name	Southern Illinois Power Co-Op	Name	Southern Illinois Power Co-op
Address	Rt. 4, Box 607	Address	Rt. 4, Box 607
City	Marion, Illinois 62959	City	Marion
State	Illinois Zip 62959	State	Illinois Zip 62959
Phone #	618-964-1448	Phone #	618-964-1448

PERSON(S) INTERVIEWED	TITLE	PHONE #
Richard Myott	Electrical Systems Manager	618-964-1448
Leonard Hopkins	Environmental and Safety Coordinator	618-964-1448
Howard McDannel	Production Manager	618-964-1448

INSPECTION PARTICIPANT(S)	AGENCY/TITLE	PHONE #
George Glass	IEPA / EPS	618-993-7200
Gerald Steele	IEPA / EPS	618-993-7200

PREPARED BY	AGENCY/TITLE	PHONE #
George Glass	IEPA / EPS	618-993-7200

SUMMARY OF APPARENT VIOLATIONS

Area	Class	Section
GGR	1	722.111
GRR	2	722.141(b)
DGS	2	726.144(d)(1)
DGS	1	725.116(a)
DGS	2	725.116(b)
DPP	2	725.137
DCP	1	725.151(a)
GPT	2	722.134(a)
DMC	2	725.214
		809.301

Area	Class	Section

Area	Class	Section

Facility Name: Southern Illinois Power Co-Op

USEPA #: IL _____

IEPA #: 1 9 9 0 5 5 5 0 0 5

WASTE DISPOSITION FORM

Waste Name (include haz & waste for which no determination has been made)	Generating Process (For waste gen. on site. N/A for TSD)	Date of Last Analysis	USEPA Haz Waste #	* On 8700-12 Un available	* On 3510-3	On Annual Report for: (Circle if present; cross out if not present) * 19 90	* 19 91	* 19 92	Amount on Site	Rate of Generation	Last Manifested Shipment	Disposition
boiler acid treatment	boiler cleaning	July 2, 1990	D001			G F	G F	G F	0	15,000 gal per/clean	N.A.	incinerated in on-site boiler
bottom ash	coal combustion	exempt	NH			G F	G F	G F	440 Tons	80,000 Ton/ year	N.A.	recycled by GroundGrit New Orleans, Louisiana
fly ash	coal combustion	exempt	NH			G F	G F	G F	199,614 yd^3	20,000 Tons per year	N.A.	land filled on site
scrubber ash	coal combustion	exempt	NH			G F	G F	G F	1,064,776 yd^3	107,000 Tons per year	N.A.	land filled on site
waste oils	electric motor lubrication	6-15-86	N.Y.D			G F	G F	G F	385 gallons	400 gallons/ 6 months	N.A.	burned as fuel in on-site boiler
parts cleaner	maintenance	K.O.P.	D001			G F	G F	G F	44 gallons	44 gallons/ 6 weeks	9-7-93	recycled by Safety Kleen
sandblast residue	equipment maintenance	9-7-93	NH			G F	G F	G F	two 55 gal. drums	one time generated	—	stored on site
vehicle waste oils	heavy equipment maintenance	none	NYD			G F	G F	G F	0	200 gallons per year		maintenance contractor removes from site, Roland Machinery, mount
Waste capacitors	equipment changeout	K.O.P.	N.H			G F	G F	G F	0	variable	5-4-93	Heavi-Duty Electric mt. Vernon, IL
						G F	G F	G F				

* All "NO" responses must be explained in narrative.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: September 20, 1993

TO: Land Division File

FROM: George GG Glass, DLPC/FOS, Region 7

SUBJECT: 1990555005 - Williamson County
Marion/Southern Illinois Power Co-Op
ILD001662816 FOS

A Compliance Evaluation Inspection of the Southern Illinois Power Co-Op (SIPC) was conducted on September 13, 1993 by George Glass and Gerald Steele. We met with Electrical Systems Manager Richard Myott and Environmental and Safety Coordinator Leonard Hopkins. We met briefly with Production Manager Howard McDannel. This site is an electrical power generating station utilizing four coal-fired boilers.

One identified hazardous waste has been generated at SIPC. Boiler cleaning generated a waste liquid that contained chromium at 12.26 mg/l. A component of the boiler wash is EDTA. There are four boilers at SIPC. The boilers are shut down on a rotating basis for cleaning. Boiler #4 was last cleaned in 1991. Boilers #1, #2, and #3 are used less so are shut down less often than #4 for cleaning. Prior to 1991 the last previous shut down was in 1987. Whenever a boiler is cleaned, the washdown waste is collected and pumped to one of the operating boilers for incineration. This process is accomplished within a totally enclosed treatment system which pipes waste from the boiler being cleaned to a pumper tank truck and then to an operating boiler. The generation of this hazardous waste was not listed in annual reports (722.141b). SIPC stated that all employees involved in handling the hazardous wastes are employees of the cleaning contractor.

SIPC generates several other wastes. The process of coal combustion generates bottom ash, fly ash, and scrubber ash. The bottom ash is used by Ground Grit of New Orleans, Louisiana, in the manufacture of roofing products. The fly ash and scrubber ash are landfilled on-site. Lubrication oils from electric motors on heaters, boosters and fans generate approximately 800 gallons a year of waste oils. These oils are burned as fuel in the on-site boilers. The last date of analysis for this oil was June 15, 1986(722.111)(726.144d)1)). The parts cleaner in the maintenance department is a commercial Safety Kleen unit. The solvent, petroleum naptha, is changed at approximate six week intervals. Approximately 44 gallons of parts cleaner is taken each service cycle by Safety Kleen. The sandblasting of a transformer prior to repainting produced a one time waste of sandblasting residue which was contained in two drums. SIPC utilizes five pieces of heavy equipment. Roland Machinery performs regular maintenance such as changing oil. These heavy equipment oil changes generate approximately 200 gallons of waste oil per year. Mr. Myott said SIPC has no manifests or analyses for this oil (809.301). This was because Roland Machinery takes the oil back to their facility and combines it with other waste oils. SIPC showed us a ticket from Safety Kleen showing 450 gallons of used oil had been received from Roland. Mr. Myott said this oil was not all theirs.

A review of records and files was conducted. The contingency plan as first presented did not list emergency contact people and their phone numbers. Later in the inspection, a call-out schedule was produced listing names, phone numbers, and pager numbers. SIPC is located within a rural fire protection district which has a local fire station located within one half mile of the site. Mr. Myott said SIPC preferred to use the Marion Fire Department because, in his opinion, it had superior training. The Marion Fire Department is located approximately ten miles from the site. The Contingency Plan did not have a written agreement designating primary emergency authority to a specific fire department (725.137 a)2)). The Contingency Plan did not identify the boiler cleaning wastes or the equipment involved. It did not include actions to take in response to a release of corrosive or hazardous materials (725.152). Records of training included safety meetings. The listing of the meetings did not include the names of the participants. These meetings do not cover hazardous waste generator training or the Contingency Plan. SIPC contends that their employees are not involved in hazardous waste management. However, RCRA personnel training has not been provided for the Emergency Coordinators (725.116a)(725.116d).

A tour of SIPC waste generation and accumulation locations was conducted and photos were taken. A metal building west of the electric generating plant is used to hold drums of product lubricating oils. Buckets are used to catch drips from the bung taps. There is a sump in this building. Spills drain into this sump. The buckets are also emptied into this sump. The sump drains to a 150 gallon underground storage tank which acts as an oil-water separator according to Mr. Myott (photo 1, roll M-676). Waste oil has been accumulated in seven drums awaiting use as a fuel (photo 2, roll M-676). There were no labels on these drums (722.134). There were no records of weekly inspections for these drums (725.274). The area where equipment and tank trucks are staged during the boiler cleaning operation was observed and photographed (photo 3, roll M-676). The tanks were not there during the inspection but record reviews and conversations indicated non-compliance with tank systems requirements.

GG:cs/1886L/10-06-93

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GG:cs/1886L/10-06-93

INSPECTION PHOTOS

DATE: 9 / 13 / 93

SITE #: 1 9 9 0 5 5 5 0 0 5 _ _ CO.: Williamson

TIME: 1:50 p.m.

SITE NAME: Marion/Southern Illinois Power Co-op

PHOTOGRAPH TAKEN BY: George Glass

COMMENTS: Pictures taken toward: West

ROLL #: M-676 PHOTO #: 1

DATE: 9 / 13 / 93

TIME: 1:55 p.m.

PHOTOGRAPH TAKEN BY: George Glass

COMMENTS: Pictures taken toward: West

ROLL #: M-676 PHOTO #: 2

FOS

INSPECTION PHOTOS

DATE: 9 / 13 / 93

SITE #: 1 9 9 0 5 5 5 0 0 5 _ _ CO.: Williamson

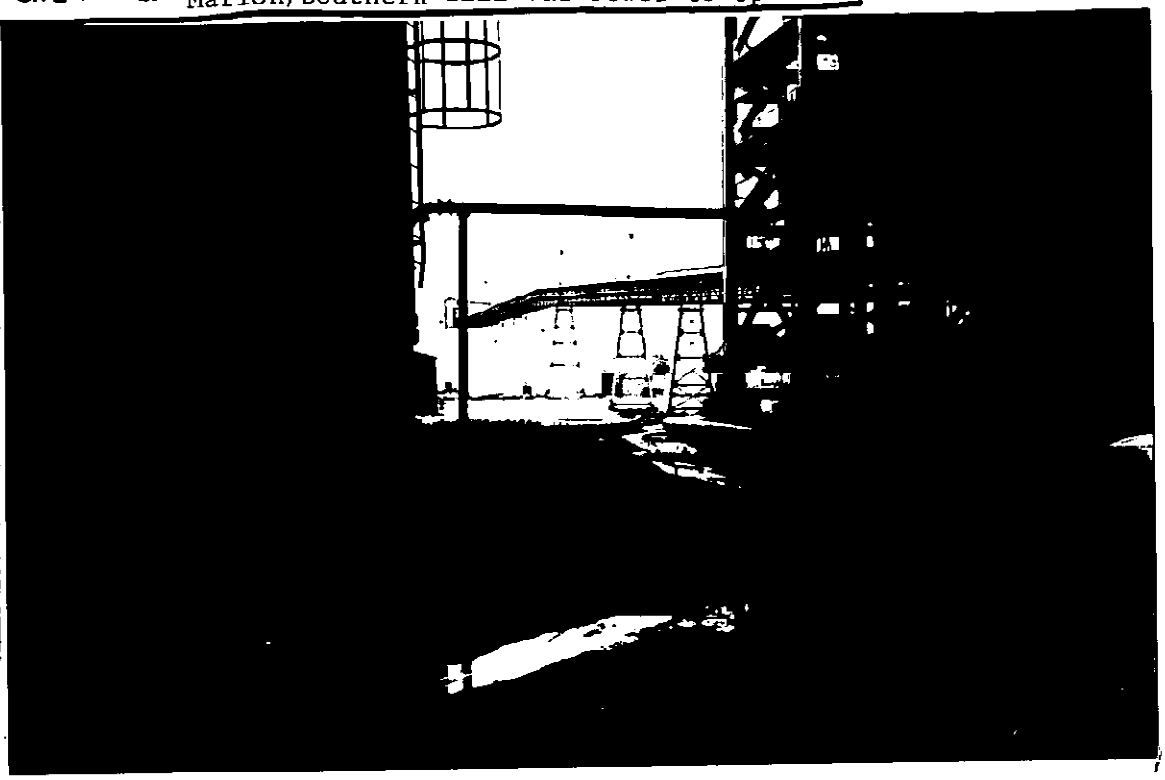
TIME: 2:05 p.m.

SITE NAME: Marion/Southern Illinois Power Co-Op

PHOTOGRAPH TAKEN BY: George Glass

COMMENTS: Pictures taken toward: East

ROLL #: M-676 PHOTO #: 3



DATE: __ / __ / __

TIME:

PHOTOGRAPH TAKEN BY:

COMMENTS: Pictures taken toward:

ROLL #: PHOTO #:

NO PHOTO

FOS

532 1910

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357
ADM 39
054-002

Subject 1990555005 - Williamson County
Data Marion / Southern Ill. Power Co-Op
~~Reviewed by~~ ILD001662816 Inspection Date 9-13-93

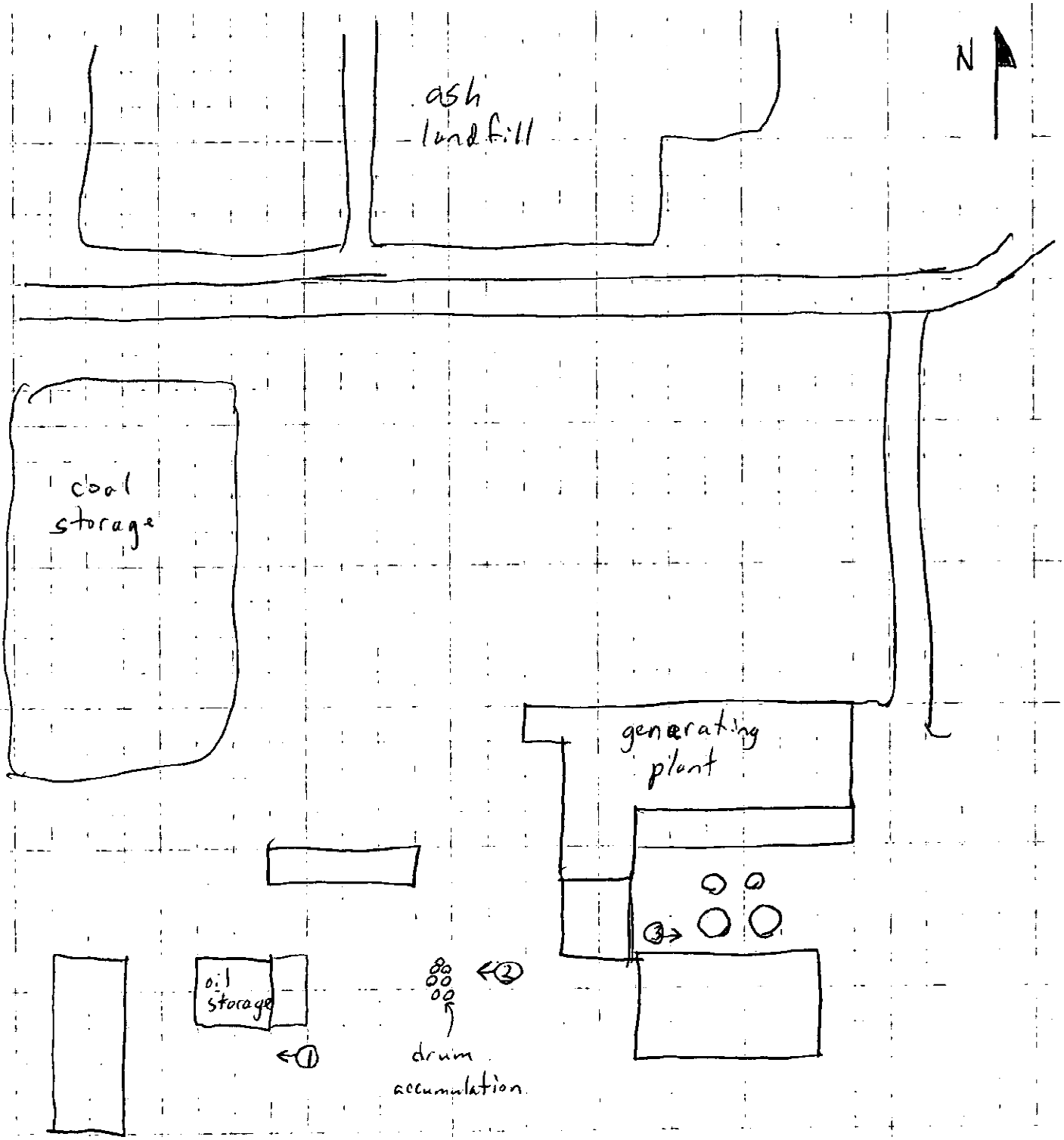


Exhibit A

Southern Illinois Power Cooperative
Marion, Illinois
Storage area began operation in 1979.

BASELINE
3+00
2+80
2+00
1+00
0+00
0+60

REVISION 1 (8/15/88)

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				PART 722 **GENERATOR STANDARDS** **Subpart A: General**				Not available for waste oil
OTH	1			**Section 722.111: Hazardous Waste Determination**		X		
				Has the generator determined if the solid waste it generates is a hazardous waste? Yes ___ No X				
				Did the generator follow the procedures specified in this section in making its determination? Yes ___ No X				
OTH	1			**Section 722.112: USEPA Identification Number**	X			
			a	Has the generator obtained a USEPA identification number? Yes X No ___				
			c	Has the generator offered his hazardous waste only to transporters or to treatment, storage or disposal facilities that have received a USEPA identification number? Yes X No ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No
				PART 722 **GENERATOR STANDARDS** **Subpart B: The Manifest**				
MAN	2			**Section 722.120: General Requirements**	X			
			a	Has the generator who transports, or who offers its hazardous waste for transportation off-site for treatment, storage or disposal prepared a uniform hazardous waste manifest? Yes X No ___ **Note: If the generator has not used a manifest, check "No" in the Apparent Compliance Column and skip to 722.130.**				
			b	Did the generator designate on the manifest one facility which is permitted to handle the hazardous waste therein described? Yes X No ___ **Note: The generator may also designate an alternate facility permitted to handle the hazardous waste in the event an emergency prevents delivery of the hazardous waste to the primary designated facility.**				
			d	In any instances where the transporter was unable to deliver the hazardous waste to the designated or alternate permitted facility, has the generator designated another permitted facility or instructed the transporter to return the waste? Yes ___ No ___ NA X				This has not occurred

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No
MAN	2			**Section 722.121: Acquisition of Manifests**	X			
			a	Did the generator use the manifest supplied by the Agency for hazardous waste going for treatment, storage or disposal in Illinois? Yes ___ No ___ N/A X				
			b	For hazardous waste going outside Illinois for treatment, storage or disposal, has the generator used the manifest supplied by the Agency if the State to which the hazardous waste is being shipped does not supply and require the completion of its own State manifest? **or** For hazardous waste going outside Illinois for treatment, storage or disposal, has the generator used the manifest required by the State to which the hazardous waste is being shipped? Yes X No ___ N/A ~~X~~ GCC				
MAN	2			**Section 722.122: Number of Copies** Does the manifest the generator is using consist of at least six copies (plus one copy for each additional transporter)?	X			
MAN	2			**Section 722.123: Use of the Manifest** For each manifest received, has the generator:	X			
				1) Signed the certificate by hand? Yes X No ___				
				2) Obtained the handwritten signature and the date of acceptance by the initial transporter? Yes X No ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				3) Retained one copy as required by Section 722.140(a), Recordkeeping? Yes X No ___				
				4) Apparently sent a copy (Part 5 for Illinois manifests) to the Agency within two working days? Yes X No ___				
				NOTE: Obtain a copy of any manifest which is not in compliance with the requirements of this subsection. If copies are unobtainable, log manifest #s.				
			b	Has the generator apparently given the remaining copies of the manifest to the transporter? Yes X No ___				
			c	Has the generator followed the procedures prescribed in Section 722.123(c) for manifesting bulk shipments of hazardous waste by water? Yes ___ No ___ N/A X				
			d	Has the generator followed the procedures prescribed in Section 722.123(d) for manifesting bulk shipments of hazardous waste by rail? Yes ___ No ___ N/A X				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				PART 722 **GENERATOR STANDARDS** **Subpart C: Pre-Transport Requirements**				
OTH	1	X		**Section 722.130: Packaging** Is waste which is ready for transportation off-site packaged in accordance with 49 CFR, Parts 173, 178 and 179?			X	none observed ready for transport
OTH	1	X		**Section 722.131: Labeling** Is each package of hazardous waste which is ready for transportation off-site labeled in accordance with 49 CFR Part 172?			X	see above
OTH	1	X		**Section 722.132: Marking**			X	see above
			a	Is each package of hazardous waste which is ready for transportation off-site marked in accordance with 49 CFR Part 172? Yes ___ No ___				
			b	Is each package of hazardous waste which is ready for transportation off-site marked with: - The generator's name and address? Yes ___ No ___ - The manifest document number associated with the container? Yes ___ No ___ - The words "Hazardous Waste - Federal Law Prohibits Improper Disposal. If found contact the nearest police, or public safety authority or the U.S. Environmental Protection Agency"? Yes ___ No ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
OTH	1			**Section 722.133: Placarding** Does the generator have, for the waste it generates, the proper placards to: - Placard the transport vehicle, or - Offer to the first transporter, according to 49 CFR, Part 172, Subpart F? **NOTE: If the placards are provided by the transporter, then mark the N/A Column and use Comment field to explain.**			X	placards provided by transporter.
OTH	1	X		**Section 722.134: Accumulation Time** **NOTE: If the TSD checklist will be completed and the facility only accumulates wastes for 90 days or less for Section 722.134 complete page GEN-C-2(a) then skip to TSD checklist.** **NOTE: A generator who is also a TSD would be subject to this section for any waste which is not identified for storage on the facility's Part A, or which is being accumulated outside a "permitted" storage area.**			X	
			a	For waste in containers, has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart I: Use and Management of Containers listed below: **NOTE: If no wastes in containers, mark "N/A" and skip to Section 725.291 of the Generator checklist.**				

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
OTH	1	X		**Section 722.134: Accumulation Time**		X		Seven portable tanks are brought in during Boiler cleaning jobs. They are removed after the job is completed. They were not on-site at the time of the inspection. The tank segment has not been completed.
				NOTE: A generator who is also a TSD would be subject to this section for any waste which is not identified for storage on the facility's Part A, or which is being accumulated outside a "permitted" storage area.				
			a1	For waste in containers, has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart I? **and/or** For waste in tanks, has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart J except Section 725.297(c) and 725.300? Yes ___ No X				
			a2	For waste in containers, has the generator marked and made visible for inspection on each container, the date upon which accumulation began? Yes ___ No X N/A ___				
			a3	For waste in containers and tanks, has the generator marked or labeled each with the words "Hazardous Waste"? Yes ___ No X				
			a4	Has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subparts C and D, and Section 725.116? Yes ___ No X				

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Area	Class	90 Day F U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Condition of Containers (Section 725.271) Has the owner or operator transferred the hazardous waste in leaking container or containers which are not in good condition or managing the waste in some other way that complies with the requirements of this Part? Yes X No ___ N/A ___ **Compatibility of Waste with Container (Section 725.272)** Is the owner or operator using containers made of or lined with materials which will not react with and are otherwise compatible with the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired? Yes X No ___ **Management of Containers (Section 725.273)** Are containers of hazardous waste always closed during storage? Yes X No ___ Are containers of hazardous waste being opened, handled or stored in manner which will prevent the rupture of the container or prevent it from leaking? Yes X No ___ **Inspections (Section 725.274)** Is the owner or operator inspecting areas where the containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors? Yes ___ No X **NOTE: Any evidence of leakage may be a reason to answer "No" to the above question, even if there are inspection records that indicate that inspections are being done.**				There were not any records of weekly inspections in the drum accumulation area

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Area	Class	90 Day F U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Special Requirements for Ignitable or Reactive Wastes (Section 725.276) Are containers holding ignitable or reactive waste located at least 50 feet from the property line? Yes ____ No ____ N/A X **Special Requirements for Incompatible Wastes (Section 725.277)** Is the owner complying with the requirements concerning the management of incompatible wastes or incompatible wastes and materials contained in this Section? Yes ____ No ____ N/A X				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				FOR WASTE IN TANKS, has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart J: Tank Systems listed below: **NOTE: If the facility has discontinued accumulation of waste in tanks, they are subject to 725.211 and 725.214.** **NOTE: If no waste in tanks, mark N/A and skip to "For waste in containers ...", Subsection a)2) page GEN-C-14.** **Assessment of Existing Tank Systems (Section 725.291)** For tanks not protected by a secondary containment system, is an independent, certified written assessment available? Yes ____ No ____ **NOTE: Except as provided in Subsection (c) of 725.291, certified assessment must be available by 1/12/88.** Does this assessment consider at least the following: 1) available standards for the tank and ancillary equipment; 2) hazardous characteristics of the wastes; 3) existing corrosion protection measures; 4) age of the tank system; and 5) results of a leak test, internal inspection, or other tank integrity examination? Yes ____ No ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Design and Installation of New Tank Systems or Components (Section 725.292) Is secondary containment provided for any new tank system (constructed after July 14, 1986) before being put into service? Yes ____ No ____ N/A ____ For new tanks (built after July 14, 1986) was an independent, certified written assessment prepared? Yes ____ No ____ Does the assessment include, at a minimum, the following: 1) design standard for tanks and ancillary equipment; **NOTE: These standards should include protection from damage from vehicular traffic, adequate foundations, anchoring to prevent flotation or dislodgement, and withstanding the effects of frost heave.** 2) hazardous characteristics of the waste; and 3) evaluation of potential for corrosion and corrosion protection measures? Yes ____ No ____ Has the owner obtained and kept on file at the facility the certifications of the design and installation requirements of Subsections (b) through (f)? Yes ____ No ____ **Containment and Detection of Releases (Section 725.293)** Does an existing tank, which stores F020, F021, F022, F023, F026 or F027 waste(s) have secondary containment (secondary containment is required by January 12, 1989)? Yes ____ No ____ N/A ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				For an existing tank, of known age, which stores any hazardous waste, is secondary containment provided (secondary containment is required by January 12, 1989 or when the tank is 15 years old, whichever is later)? Yes ____ No ____ N/A ____ For an existing tank of unknown age, has secondary containment been provided by January 12, 1995? Yes ____ No ____ N/A ____ or If the facility is older than 7 years, by the time the facility reaches 15 years of age or January 12, 1989, whichever is later? Yes ____ No ____ N/A ____ For tanks that store wastes that are listed as hazardous after 1/12/87, has secondary containment been provided on the same basis as required in Subsections (a)(1) through (a)(4) of 725.293 substituting the date that a material becomes a hazardous waste for 1/12/87? Yes ____ No ____ N/A ____ Is the secondary containment system designed, installed and operated to prevent migration of wastes out of the system, and capable of detecting and collecting releases? Yes ____ No ____ N/A ____ NOTE: **To meet the requirements of Subsection (b) secondary containment must comply with the physical requirements given in Subsection (c)(1) through (4) (compatible liner, foundation, leak detection system).** Are spilled or leaked wastes and accumulated precipitation removed from the secondary containment within 24 hours? Yes ____ No ____ N/A ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				NOTE: A RCRA permit may allow for removal of liquids less frequently than 24 hours after accumulation. Does the secondary containment have one or more of the following: 1) a liner (external to the tank); or 2) a vault; or 3) a double-walled tank; or 4) an equivalent device (approved by the Board)? Yes ___ No ___ N/A ___ **NOTE: Liners, vaults or double-walled tanks must also comply with the requirements of Section 725.293, Subsection (e) or "No" should be marked and explained in the comment.** Is ancillary equipment protected by secondary containment that meets the requirement of Subsections (h) and (c) except for: 1) above ground piping (exclusive of flanges, joints, valves and connections) that are inspected daily; 2) welded flanges, joints and connections that are inspected daily; 3) sealless or magnetic coupling pumps that are inspected daily; and 4) pressurized above ground piping systems with automatic shut-off devices that are inspected daily? Yes ___ No ___ N/A ___ Until such time as secondary containment is provided, are the following requirements being met for all tank systems:				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				1) For non-enterable underground tanks, has a yearly leak test that meets the requirements of 725.291(b) been conducted? Yes ___ No ___ N/A ___ 2) For enterable underground tanks and ancillary equipment, has a yearly leak test or an internal inspection or other tank integrity examination by an independent registered professional engineer been conducted? Yes ___ No ___ N/A ___ 3) Are written records maintained at the facility to document the assessments required under Subsections (i)(1) and (2)? Yes ___ No ___ N/A ___ **General Operating Requirements (Section 725.294)** Are tanks equipped with spill prevention controls (e.g., check valves, dry disconnect couplings) and overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff or bypass to a standby tank)? Yes ___ No ___ Is a sufficient freeboard being maintained in uncovered tanks to prevent overtopping by wave or wind action or by precipitation? Yes ___ No ___ N/A ___ If a leak or spill has occurred in the tank system, has the owner or operator complied with the requirements of 725.296? Yes ___ No ___ N/A ___				

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Inspections (Section 725.295) Is the facility operator inspecting and documenting, in an operating record, the results of tank inspection as required in 725.295, Subsections (a) and (b)? Yes ____ No ____ **Response to Leaks or Spills and Disposition of Tank Systems (Section 725.296)** Does the facility have a tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use? Yes ____ No ____ **NOTE: If "No", skip to Closure and Post Closure Care (Section 725.297). If "Yes", answer the following questions.** If a tank or secondary containment system has leaked, has the owner done the following: 1) Ceased using, stopped inflow of wastes? Yes ____ No ____ 2) Removed the waste from the tank system within 24 hours and/or from the secondary containment system within 24 hours? Yes ____ No ____ 3) Taken actions to prevent waste migration and removed and properly disposed of visibly contaminated soil or subsurface water? Yes ____ No ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				4) Reported to the Agency within 24 hours of detection? Yes ____ No ____ **NOTE: Reporting to the Agency is not necessary if less than one pound of material which was immediately contained and cleaned up was spilled.** 5) Within 30 days of detection of a release, submitted a report to the Agency that complies with Section 725.296(d)(3)(A) through (E)? Yes ____ No ____ If the source of the release was from a component of a tank system without secondary containment, has the owner provided secondary containment (that satisfies 725.293) to the component of the system before it is returned to service? Yes ____ No ____ N/A ____ **NOTE: If the component is above ground and can be visually inspected then secondary containment is not needed.** Certification of major repairs. If an extensive repair has been done, then is a certification by an independent, registered professional engineer, that the repaired system is capable of handling hazardous waste available before the tank is returned to service? Yes ____ No ____ N/A ____ Has the certification been submitted within 7 days after returning the tank system to use? Yes ____ No ____ N/A ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Closure and Post Closure Care (Section 725.297) **NOTE: The requirements of this section apply to closure of tank systems. If no closure is being performed, then skip to Special Requirements for Ignitable or Reactive Wastes (Section 725.298).** At the time of closure, has the owner removed or decontaminated all waste residues, contaminated components, contaminated soils and structures and equipment and managed them as hazardous waste (unless 721.103(d) applies)? Yes ____ No ____ Has the closure plan, closure activities, cost estimates for closure and financial responsiblity for tank systems met all requirements specified in Subparts G and H? Yes ____ No ____ If contaminated soils are not removed, then has the tank system performed closure and post closure care in accordance with requirements applicable to landfills (Section 725.410)? Yes ____ No ____ **NOTE: Such a tank system is considered a "Landfill" and shall meet all of the requirements of landfills specified in Subparts G and H.** **Special Requirements for Ignitable or Reactive Wastes (Section 725.298)** Are ignitable or reactive wastes stored in tanks? Yes ____ No ____ **NOTE: If "No", skip to Special Requirements for Incompatible Wastes (Section 725.299).**				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				If ignitable or reactive wastes are stored or treated in tanks, then is it in such a way that the waste is protected from material or conditions that may cause it to ignite or react? Yes ____ No ____ **NOTE: Tank systems used solely for emergencies may store ignitable/reactive wastes.** Are there proper protective distances between the waste management area and the facility boundary line? Yes ____ No ____ **Special Requirements for Incompatible Wastes (Section 725.299)** Is Section 725.117 being complied with whenever incompatible wastes are stored in the same tank system or in a tank system which has not been decontaminated? Yes ____ No ____ N/A ____				

IL 532-1592
LPC 25a 6/87

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
			a2	**For waste in containers**, has the generator marked and made visisble for inspection on each container, the date upon which accumulation began? Yes ___ No X N/A ___				The drums in the drum accumulation area were not marked or labeled with the either the date accumulation began or with the words "Hazardous Waste".
			a3	**For waste in containers and tanks**, has the generator marked or labeled each with the words "Hazardous Waste"? Yes ___ No X				
			a4	Has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart C: Preparedness and Prevention listed below: **Maintenance and Operation of Facility (Section 725.131)** Is the facility being maintained and operated to minimize the possibility of a fire, explosion or any unplanned and sudden or non-sudden release of hazardous waste or hazardous waste constituents to: - Air; - Soil; or - Surface Water, which would threaten human health or the environment? Yes X No ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Required Equipment (Section 725.132) Is the facility equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment: - An internal communications or alarm system capable of providing immediate emergency instructions? Yes X No ___ N/A ___ - A device such as a telephone (immediately available at the scene of operations) capable of summoning emergency assistance from local police or fire departments or State or local emergency response teams? Yes X No ___ N/A ___ - Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment? Yes X No ___ N/A ___ - Water at adequate volume and pressure to supply water hose streams or foam producing equipment or automatic sprinklers or water spray systems? Yes X No ___ N/A ___ **NOTE: Any "N/A" answers must be explained in the Remarks column.**				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Testing and Maintenance of Equipment (Section 725.133) Where required, is the facility testing and maintaining, as necessary, to assure proper operation in time of emergency: - Communications/alarm systems? Yes X No ___ N/A ___ - Fire protection equipment? Yes X No ___ N/A ___ - Spill control equipment? Yes X No ___ N/A ___ - Decontamination equipment? Yes X No ___ N/A ___ **NOTE: Any "N/A" answer must be explained in the Comments.** **Access to Communications or Alarm Systems (Section 725.134)** Do all personnel involved in handling hazardous waste have immediate access to an internal alarm or emergency communication device, either directly or thru visual or voice contact with another employee, unless not required under Section 735.132? Yes X No ___ N/A ___ If there is ever just one employee on the premises while the facility is operating, does he have immediate access to a device, such as a telephone, capable of summoning external emergency assistance, unless such a device is not required under Section 725.132? Yes X No ___ N/A ___				

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Required Aisle Space (Section 725.135) Is the owner or operator maintaining sufficient aisle space to allow the unobstructed movement of personnel, fire equipment and decontamination equipment to any area of the facility? Yes X No ___ N/A ___ **NOTE: Document non-compliance with photograph.** **Arrangements with Local Authorities (Section 725.137)** Has the owner or operator made or attempted to make the following arrangements, as appropriate for the type of waste handled at this facility and the potential need for the services of these organizations: 1) Arrangements to familiarize police and fire departments and emergency response teams with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where personnel would normally be working, entrances to roads inside the facility and possible evacuation routes? Yes ___ No X N/A ___ 2) Where more than one police or fire department might respond to an emergency, has one been designated as the primary emergency authority with the others agreeing to provide support to the primary emergency authority? Yes ___ No X N/A ___				There were no records to document arrangements. The facility has requested that Marion Fire Dept. respond from 10 miles away. A local fire district is ½ mile away. There are no documents to designate primary and support arrangements

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				3) Agreements with State emergency response teams, emergency response contractors and equipment suppliers? Yes ___ No X NA ___				There are no documents to support any such arrangements.
				4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions or releases at the facility? Yes ___ No X N/A ___				There are no records to document such arrangements.
				NOTE: Any "N/A" answer must be explained in the Comments.				
				Has the owner or operator documented, in the operating record, refusal of State or local authorities to enter into any or all of the above arrangements? Yes ___ No ___ N/A X				none have refused
				Has the generator complied with the requirements of 35 Ill. Adm. Code 725, Subpart D: Contingency Plan and Emergency Procedures listed below:				
				Purpose and Implementation of Contingency Plan (Section 725.151)				
				Is a plan available? Yes ___ No X				
				NOTE: If answer is "No", skip to Emergency Coordinator (Section 725.155).				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Is the plan designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water? Yes ____ No ____ Have the provisions of the plan been carried out immediately whenever there was a fire, explosion or release of hazardous waste constituents which could threaten human health or the environment? Yes ____ No ____ N/A ____ **Content of Contingency Plan (Section 725.152)** Does the plan describe the actions facility personnel must take to comply with Sections 725.151 and 725.156 in response to: 1) Fires? Yes ____ No ____ 2) Explosions? Yes ____ No ____ 3) Unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to air, soil, or surface water? Yes ____ No ____ Does the plan describe the arrangements agreed to by: 1) Local police and fire departments? Yes ____ No ____ 2) Hospitals? Yes ____ No ____ 3) Contractors? Yes ____ No ____ 4) State and local emergency response teams? Yes ____ No ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No
				Does the plan list the names, addresses and phone numbers (office and home) of all personnel qualified to act as emergency coordinators? Yes ____ No ____ Is the list of emergency coordinators up-to-date? Yes ____ No ____ If more than one person is designated as an emergency coordinator, is a primary coordinator identifed? Yes ____ No ____ Does the plan identify: 1) A list and physical description of all emergency equipment at the facility? Yes ____ No ____ 2) A brief outline of the capability of each piece of emergency equipment? Yes ____ No ____ 3) The location of each piece of emergency equipment? Yes ____ No ____ Is the list of emergency equipment up-to-date? Yes ____ No ____ Does the plan include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? Yes ____ No ____ N/A ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				Does the plan identify the signal to be used to begin evacuation? Yes ____ No ____ Are alternate evacuation routes identifed? Yes ____ No ____ **Copies of Contingency Plan (Section 725.153)** Has a copy (and all revisions) of the contingency plan: a) Been maintained at the facility? Yes ____ No ____ b) Been submitted to all local police and fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency service? Yes ____ No ____ **Amendment of Contingency Plan (Section 725.154)** Has the contingency plan been reviewed and, if necessary, amended whenever: 1) Applicable regulations are revised? Yes ____ No ____ 2) The plan fails in an emergency? Yes ____ No ____ N/A ____				

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
				3) The facility changes - in its design, construction, operation, maintenance or other circumstances - in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents or changes in the response necessary in an emergency? Yes ____ No ____ N/A ____ 4) The list of emergency coordinators changes? Yes ____ No ____ 5) The list of emergency equipment changes? Yes ____ No ____ **Emergency Coordinator (Section 725.155)** Is there an emergency coordinator on-site or on call at all times? Yes X No ____ Is there an emergency coordinator familiar with all aspects of the contingency plan, all operations and activities at the facility, the location and characteristics of the wastes handled, the location of all records in the facility and the facility layout? Yes X No ____ Does the coordinator have the authority to commit the resources to carry out the contingency plan? Yes X No ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Emergency Procedures (Section 725.156) Has the facility had a release, fire or explosion? Yes ____ No X **NOTE: If the answer is "Yes", explain in detail the incident and how the facility did or did not follow the procedures prescribed in this section. Review the requirements while completing the explanation. If the company failed to meet one or more of the requirements, check "No" in the Apparent Compliance column of 722.134.**				
			a4	Has the generator complied with the requirements of 35 Ill. Adm. Code 725.116: Personnel Training listed below: **Personnel Training (Section 725.116)** Does the facility have a training program? Yes ____ No X **NOTE: If "No", skip to Subsection (c)1 page GEN-C-26.** Have facility personnel who are involved with hazardous waste management successfully completed a program of classroom or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Part? Yes ___ No ___ Is the training program formalized, i.e., written down? Yes ___ No ___ Is the program directed by a person who has been trained in hazardous waste management procedures? Yes ___ No ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Does the program cover, at a minimum: 1) Procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment? Yes ___ No ___ N/A ___ 2) Key parameters for automatic waste feed cut-off systems? Yes ___ No ___ N/A ___ 3) Communications or alarm systems? Yes ___ No ___ 4) Response to fire or explosion? Yes ___ No ___ 5) Response to groundwater contamination incidents? Yes ___ No ___ N/A ___ Does the program cover the implementation of the contingency plan? Yes ___ No ___ Have new employees completed the program within six months of the date of employment or assignment to a position requiring them to manage hazardous waste? Yes ___ No ___ N/A ___ Has the facility conducted an annual review of the initial training? Yes ___ No ___ N/A ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				Are the following documents and records being maintained at the facility: 1) The job title for each position related to the management of hazardous waste and the name(s) of the employee(s) filling each job? Yes ____ No ____ 2) A written job description for each job position above, to include the requisite skill, education or other qualifications and duties of personnel assigned to each position? Yes ____ No ____ 3) A written description of the type and amount of both initial and continuing training that will be given to each person holding a position dealing with hazardous waste management? Yes ____ No ____ 4) Records to document that the training or job experience have been given to and completed by personnel dealing with hazardous waste management? Yes ____ No ____ Is the facility maintaining training records of former employees who were involved in hazardous waste management for a period of at least three years? Yes ____ No ____ N/A ___				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
			c1	**SATELLITE ACCUMULATION** Is the generator who accumulates hazardous waste in containers at or near any point of generation where wastes initially accumulate and which is under the control of the operator of the process generating the waste: - Limiting such accumulation to 55 gallons (one quart of acutely hazardous waste listed in 35 Ill. Adm. Code 721.133)? Yes ____ No ____ N/A ____ - Complying with the requirements of: 1) 35 Ill. Adm. Code 725.271, Condition of Containers? Yes ____ No ____ 2) 35 Ill. Adm. Code 725.272, Compatibility of Waste with Containers? Yes ____ No ____ 3) 35 Ill. Adm. Code 725.273(a), Management of Containers - requiring that the containers be stored closed except when waste is being added or removed? Yes ____ No ____ - Marking the containers with the words "Hazardous Waste" or with words that identify the contents of the containers? Yes ____ No ____			X	no satellite accumulation

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
			c2	Has the generator who accumulates more than 55 gallons (one quart of acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e)) with respect to the amount of excess waste, complied with the requirements in Section 722.134(a) within three days? Yes ____ No ____ Are the containers with the excess amounts marked with the date accumulation began? Yes ____ No ____ During the three day period, is the generator continuing to comply with the requirements of Section 722.134(c)(1)? Yes ____ No ____				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
				PART 722 **GENERATOR STANDARDS** **Subpart D: Recordkeeping and Reporting**				
OTH	2			**Section 722.140: Recordkeeping**		X		
				Has the generator retained for a period of three years:				
			a	- A copy of each signed manifest? Yes X No ___				
			b	- A copy of each annual report? Yes ___ No X				Annual reports not filed.
			b	- A copy of each exception report? Yes ___ No ___ N/A X				
			c	- Copies of test results, waste analyses or other determinations made in accordance with Section 722.111? Yes X No ___ N/A ~~X~~ GRG				
			d	Does a generator who is involved in any unresolved enforcement action continue to maintain the records required in 722.140(a) thru (c)? Yes ___ No ___ N/A X				none have occured
			d	If the Director has requested that the records required in 722.140(a) thru (c) be maintained for a period longer than three years, has the generator continued to maintain them? Yes ___ No ___ N/A X				none have occured

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
OTH	2			**Section 722.141: Annual Reporting** Has the generator who ships waste off-site to a treatment, storage or disposal facility within the United States prepared and submittted a copy of an annual report, as supplied by the Agency, to the Agency by March 1 for the preceeding calendar year? **NOTE: A generator who treats, stores or disposes of hazardous waste on-site must also submit an annual report as a TSD in accordance with the requirements of 35 Ill. Adm. Code 702, 703, 724, 725 and 40 CFR 266.**		X		annual reports not filed.
MAN	1			**Section 722.142: Exception Reporting**			X	
			a	Has the generator who has not received a signed copy of the manifest from the designated TSD within 35 days of the date the waste was accepted by the initial transporter determined the status of its hazardous waste? Yes ___ No ___ NA X				none have occured
			b	Has the generator who has not received a signed copy of the manifest from the designated TSD within 45 days of the date the waste was accepted by the original transporter submitted an exception report to the Director? Yes ___ No ___ NA X				
			b	Does any exception report submitted to the Director contain the following: - A legible copy of the manifest for which the generator does not have confirmation of delivery; and				

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
OTH	1			- A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts? Yes ___ No ___ N/A X **Section 722.143: Additional Reporting** Has the generator submitted all additional reports concerning quantities and disposition of wastes as required by the Director?			X	none have occured

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No.
OTH	1/2			**PART 722** **GENERATOR STANDARDS** **Subpart E: Exports of Hazardous Waste** **Section 722.152: General Requirements** Has the facility made any shipments of hazardous waste outside the United States? Yes ___ No X **NOTE: If "No", skip Subpart E. If "Yes", answer the next question.** Has the generator complied with the requirements in Sections 722.152 through 722.157? Yes ___ No ___ **NOTE: If the answer is "No", explain in detail why the firm did not meet the requirements. Review the requirements prior to answering this question. When citing a violation of this Subpart, identify the specific section violated in the Narrative as well as in the Comments.**		X	X	no exports

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Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	In Apparent Compliance? No	Not Applicable	Remarks or Comment No
				PART 722 **GENERATOR STANDARDS** **Subpart F: Imports of Hazardous Waste**				
MAN	1			**Section 722.160: Imports of Hazardous Waste**			X	no imports
			b1	Has the person importing hazardous waste met the manifest requirements of Section 722.120 except that: In place of the generator's name, address and USEPA identification number, the name and address of the foreign generator and the importer's name, address and USEPA identification number are used; **and**				
			b2	Has the importer or his agent signed the manifest in place of the generator; **and**				
			b2	Has the importer or his agent obtained the signature of the initial transporter? Yes ____ No ____ N/A X				
			c	Is the person importing hazardous waste using manifests obtained from the Agency? Yes ____ No ____				

Area	Class	90 Day F/U Req	Key Ltr / Sub Sec	Requirement	In Apparent Compliance? Yes	No	Not Applicable	Remarks or Comment No.
OTH	2	X		**PART 722** **GENERATOR STANDARDS** **Subpart G: Farmers** **Section 722.170: Farmers** Is a farmer who is disposing of waste pesticides from his own use which are hazardous wastes: - Triple rinsing each emptied pesticide container in accordance with 35 Ill. Adm. Code 727.107(b)(3), Residues of Hazardous Waste in Empty Containers? Yes ___ No ___ N/A X - Disposing of pesticide residue on his own farm in a manner consistent with the disposal instructions on the pesticide label? Yes ___ No ___ N/A X **NOTE: If the answer to either of the preceeding questions is "No", the farmer is subject to the requirements of this Part (722) and to the applicable portions of 35 Ill. Adm. Code 702, 703 and 725 (724). Complete the applicable inspection form(s).**			X	non "farmer"

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Calculations for Landfill Contents

~~Bottom~~ scrubber ash and fly ash in landfill per Oct. 1993 (estimated)

$\frac{12\ mo}{yr} \times \frac{3.16\ acre\ ft.}{month} \times \frac{43,560\ ft^2}{acre} = 1,651,795\ ft^3/yr$

$\frac{ft^3}{27} = 61,177\ yd^3/yr = 122,000\ Tons/yr$
(given amount by SIPC)

roughly equals 1 yd = 2 tons
fly ash approximately = 15.75% of amount in landfill
scrubber ash " = 84.25% " " " "
1,080,859 cubic yards in landfill at October 1990 (permit file)

Total in landfill October 1990 = 1,080,859
3 years @ 61,177 yd³/yr = 183,531
Total October 1993 = 1,264,390 yd³

fly ash 15.75% x total = 199,614 yd³
scrubber ash 84.25% x total = 1064,776 yd³

SOUTHERN ILLINOIS POWER COOPERATIVE
CALL-OUT SCHEDULE
SEPTEMBER 3, 1993

Time is in effect from 4:00 P.M. Friday to 4:00 P.M. the following Friday:			Pager
September 3 – September 10	Ed Bowles	997-1576	457-0768
September 10 – September 17	Clark Madden	995-2331	457-0769
September 17 – September 24	Jerry Jones	995-2959	457-0783
September 24 – October 1	Todd Gallenbach	997-5093	457-0783
	Howard McDannel	996-2062	457-0767

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 46

HUMAN AND ECOLOGICAL RISK ASSESSMENT OF COAL COMBUSTION RESIDUALS

Final

December 2014

U.S. Environmental Protection Agency
Office of Solid Waste and Emergency Response
Office of Resource Conservation and Recovery

Regulation Identifier Number: 2050-AE81

2 Problem Formulation

This purpose of this section is to describe the development of the conceptual models that form the basis for the analysis of surface impoundments and landfills. This section also provides a summary of the data sources used to characterize coal-fired facilities, waste management practices, constituent releases and receptor behavior. Finally, this section includes a preliminary hazard identification to identify the COPCs to be carried forward for further analysis. This section is divided into the following subsections:

- **Section 2.1** provides an overview of the source and properties of each major type of CCR.
- **Section 2.2** provides the conceptual models developed for surface impoundments and landfills that identify each relevant release route, transport pathway, and receptor.
- **Section 2.3** summarizes the data sources incorporated into the risk analysis.
- **Section 2.4** provides the risk criteria used to evaluate risks throughout the assessment.
- **Section 2.5** identifies the potential hazards that warrant further evaluation.

2.1 Overview of Coal Combustion and Residuals

CCR is a broad term used to refer to the byproducts that are generated either directly by coal combustion or as a result of applying certain pollution control devices to emissions from coal-fired combustion units, with the resulting wastes destined for disposal. CCRs may be generated wet or dry; however, this composition may change after generation. Some CCRs are dewatered, while others are mixed with water to facilitate transport (i.e., sluiced). When multiple types of CCRs are generated at the same facility, mixing and codisposal may occur. The distinct CCR categories identified in the 2010 Proposed Rulemaking include fly ash, bottom ash, boiler slag, and flue gas desulfurization (FGD) materials:

- **Fly ash** is the fraction of combusted coal that becomes suspended in plant flue gases. It is a very fine, powdery material composed primarily of silica. Fly ash is removed from the plant exhaust gases primarily by electrostatic precipitators (ESPs) or baghouses that contain fabric filters. In facilities that use activated carbon injection (ACI) before fly ash collection, the fly ash waste stream will also contain the carbon, along with other mercury control wastes. However, where ACI occurs after fly ash collection, a separate waste stream may result.
- **Bottom ash** consists of ash particles that are too large to become entrained in the flue gas during combustion. It is coarse, with grain sizes that range from fine sand to fine gravel, and quite angular, with a porous surface structure. Bottom ash is collected from the furnace after it collides with and agglomerates to furnace walls or falls through open grates to an ash hopper beneath the furnace.
- **Boiler slag** is molten bottom ash that has been quenched with water. When the molten ash comes in contact with the water, it crystallizes, fractures and forms pellets that are hard with

a smooth, glassy appearance. Boiler slag is collected from the base of either slag tap or cyclone type furnaces.

- **FGD materials** are produced through a process used to reduce sulfur dioxide (SO_2) emissions from the exhaust gas system of a coal-fired boiler. The physical nature of these materials varies from a wet sludge to a dry powdered material, depending on the pollution control technology, and the composition consists of sulfites, sulfates or a mixture thereof.

These different CCR wastes may be generated separately or mixed together. Even when generated separately, facilities often codispose of multiple waste types in a single WMU. **Figure 2-1** provides the layout of a hypothetical coal-fired plant. This simplified layout is intended to demonstrate some of the major pollution control technologies, waste streams and collection points associated with coal combustion. It is intended to be illustrative and does not capture all possible control technologies or plant layouts.

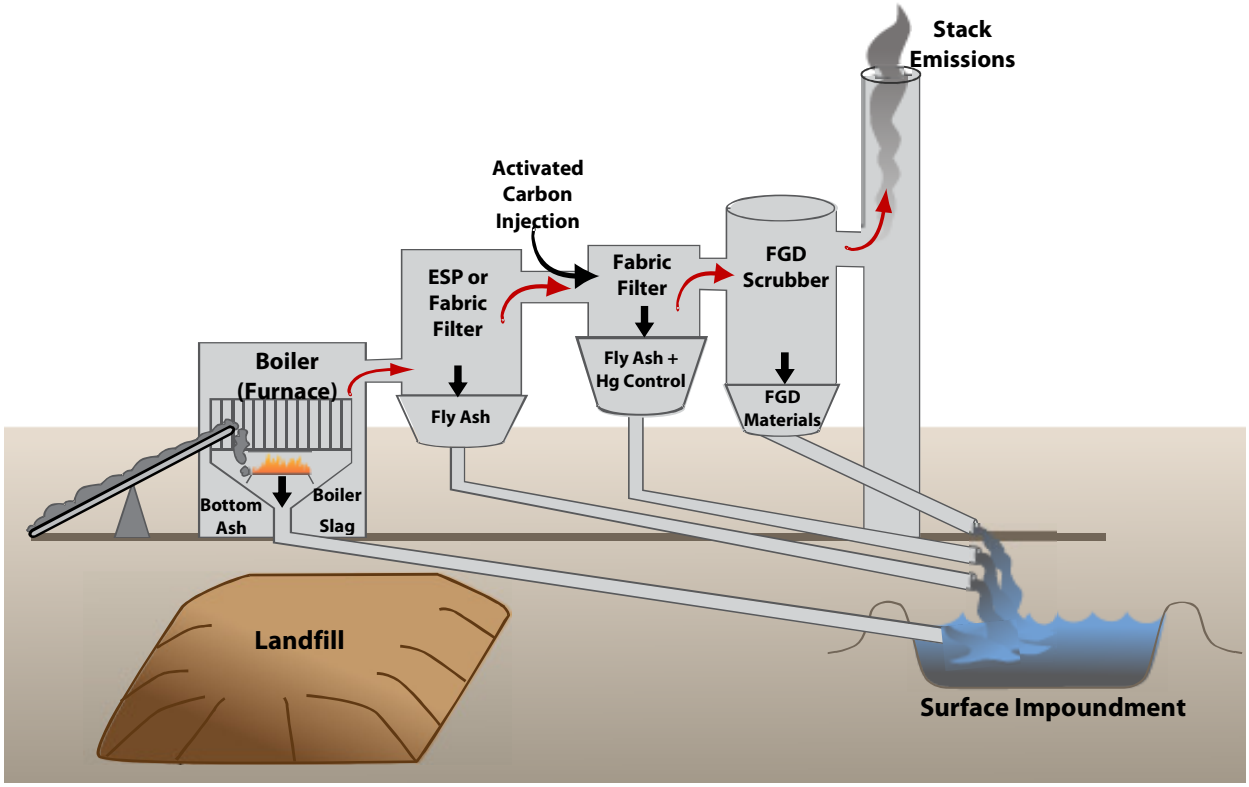

Figure 2-1. Generalized coal-fired power plant layout.

2.2 Conceptual Models

Once disposed in WMUs, the chemical constituents present in CCRs may be released to the surrounding environment. To evaluate the risks to human health and the environment that may result from these releases, EPA first developed conceptual models to specify the layout of surface impoundments and landfills, the types of releases that may occur from these WMUs, and the types of exposures that may result. These conceptual models were developed to represent generic WMU layouts and are not intended to reflect any specific facility or WMU. These conceptual models were used to form the basis for data collection and modeling efforts.

Neither conceptual model includes direct, point source discharges to surface water. These types of releases are permitted under the National Pollutant Discharge Elimination System of the Clean Water Act and have been evaluated separately in the *Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category* (U.S. EPA, 2013). The risk assessment for direct discharges was conducted in support of proposed effluent limitation guidelines (ELG) for the steam electric power generating point source category.[6] That assessment is under revision by EPA in response to the public comments received on the proposal and will be released in conjunction with the final ELG rule.

Surface water used as a source of potable water is not included in either conceptual model. Surface water is assumed to be routed through a municipal water treatment facility prior to consumption, reducing constituent levels present. Furthermore, neither conceptual model includes incidental ingestion of, inhalation of, or dermal contact with COPCs in surface water that may occur during swimming or other activities near a water body. For human receptors, it is assumed that these exposures are infrequent and small in comparison to similar exposures from ground water.

2.2.1 Surface Impoundment Conceptual Model

Surface impoundments are conceptualized as square units that are constructed anywhere from entirely above grade to entirely below ground surface. During operation, a surface impoundment receives waste sluiced from the facility. Over time, impoundment water may be lost to some combination of infiltration, evaporation, and controlled discharges to other impoundments and nearby water bodies, while the CCR solids either accumulate until the surface impoundment's capacity is reached or are periodically dredged for final disposition elsewhere. To reflect that the majority of impoundments are periodically dredged, the conceptual model assumes that dredging losses are balanced out by continued loading from the facility, resulting in a constant ponding depth over the operational life. It is assumed that all waste is removed from most units prior to closure (i.e., clean closure). However, in some instances, waste is left in place and the unit is closed and capped. Closed surface impoundments are assumed to behave the same as a closed landfill. **Figure 2-2** depicts a cross-section of the conceptual layout for operating impoundments.

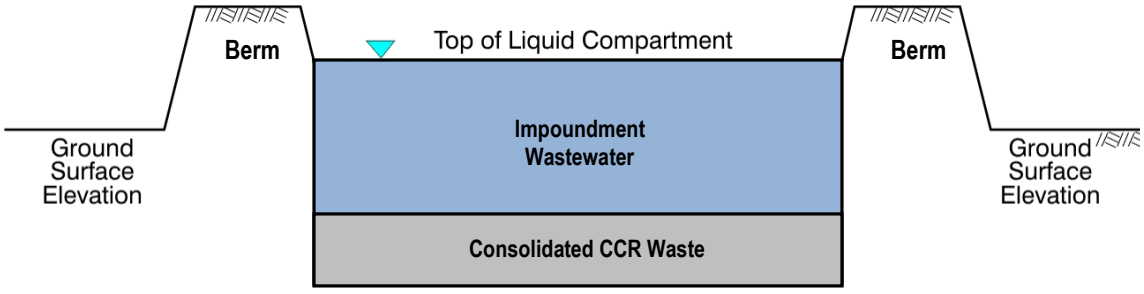

Figure 2-2. Cross-sectional view of generic surface impoundment site model.

Chemical constituents can be released from surface impoundments through the leaching of soluble constituents into the water that comes in contact with the CCRs and percolation of the resulting

[6] Available online in docket number EPA-HQ-OW-2009-0819 at: www.regulations.gov.

Attachment A-2.
WMU Information

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6137	A. B. Brown Generating Station	88	SI	Lower Ash Pond	37.90488889	-101.8346944	53	930	17.54716981	Ash & Coal Refuse	None	--
6137	A. B. Brown Generating Station	1163	LF	FGD Lanfill	37.91361111	-87.70916667	176	6421.487603	36.48572502	Combined Ash	Yes	--
6137	A. B. Brown Generating Station	89	SI	Upper Ash Pond	37.9	-87.7	103	2417	23.46601942	Combined Ash	None	--
2535	AES Cayuga, LLC	1102	LF	Ash Site Landfill	42.60871111	-76.61863056	--	--	--	Combined Ash	Yes	--
2527	AES Greenidge	1286	SI	Lookwood Sedimentation/naturalization Basin	42.67595833	-76.96069167	1.75151515	5.919421488	3.379600503	Combined Ash	Clay	--
2527	AES Greenidge	1101	LF	AES Lockwood	42.6813	-76.948687	--	--	--	Combined Ash	Yes	--
2527	AES Greenidge	1285	SI	Bottom Ash Pond C-Pond	42.68086667	-76.94438056	2.61707989	13.08539945	5	Combined Ash	None	--
994	AES Petersburg	431	SI	Pond A - Discharge	38.53353611	-87.24662778	5	108	21.6	Combined Ash	None	--
994	AES Petersburg	432	SI	Pond B	38.53639722	-87.24515833	35	1240	35.42857143	Combined Ash	None	Excluded
994	AES Petersburg	430	SI	Pond A - Active	38.53194444	-87.24491944	67	930	13.88059701	Combined Ash	None	--
994	AES Petersburg	433	SI	Pond C	38.53921667	-87.24106944	30	1054	35.13333333	Combined Ash	None	Excluded
994	AES Petersburg	989	LF	RWS Type III	38.53035278	-87.23888056	118.5	10103.30579	85.25996443	Combined Ash	Yes	--
6082	AES Somerset LLC	1287	SI	Sludge Basin	43.352783	-78.605356	2.181	--	--	FGD Waste	Yes	--
6082	AES Somerset LLC	1106	LF	SWDA 1	43.359	-78.58375	84	227.2727273	2.705627706	Combined Ash	Clay	Excluded
6082	AES Somerset LLC	1105	LF	SWDA 2	43.35161111	-78.58358333	82	202.020202	2.463661	Combined Ash	Composite	--
3942	Albright Power Station	1385	SI	North Lagoon	39.49	-79.64083333	1.02846648	9.794811754	9.523705357	Combined Ash	Clay	--
3942	Albright Power Station	1386	SI	South Lagoon	39.486978	-79.635108	1.13406795	9.821297062	8.660236842	Combined Ash	Clay	--
3942	Albright Power Station	931	LF	Active CCB Landfill	39.48676944	-79.60292778	45	3006.198347	66.80440771	Combined Ash	None	--
3942	Albright Power Station	930	LF	Closed CCB Landfill	39.49138889	-79.60263333	70	1797.520661	25.67886659	Combined Ash	None	Excluded
1915	Allen S King	927	LF	AS King Ash Disposal Facility	45.03444444	-92.79916667	--	--	--	Combined Ash	Yes	--
3393	Allen Steam Plant	119	SI	East Ash Stilling Pond	--	--	23	180	7.826086957	Combined Ash	--	--
3393	Allen Steam Plant	120	SI	East Ash Disposal	--	--	70	1100	15.71428571	Combined Ash	--	--
4140	Alma	993	LF	--	--	--	85	1239.669422	14.58434614	Combined Ash	--	--
4140	Alma	994	LF	--	--	--	--	--	--	Combined Ash	--	Excluded
1122	Ames Electric Services Power Plant	1202	SI	Ash Pond	42.028175	-93.59932778	4.14	--	--	Ash & Coal Refuse	Yes	--
6469	Antelope Valley Station	212	SI	Spray Drier Ash Water Make-Up Pond	47.373	-101.8346944	3.1	28	9.032258065	Combined Ash	Composite	Excluded
6469	Antelope Valley Station	923	LF	SP-025	47.38347	-101.82575	63.8	3099.173554	48.57638799	Combined Ash	Clay	--
6469	Antelope Valley Station	922	LF	SP-160	47.38922222	-101.81725	102.7	9917.355372	96.56626458	Combined Ash	Clay	--
6469	Antelope Valley Station	213	SI	Decant Pond (Temporary Pond)	--	--	3	19	6.333333333	Combined Ash	Clay	Excluded
160	Apache Station	299	SI	Scrubber Sludge Pond 1	32.07277778	-109.9127778	41.7	314	7.529976019	Combined Ash	Composite	--
160	Apache Station	297	SI	Scrubber Sludge Pond 2	32.07666667	-109.9127778	42	446	10.61904762	Combined Ash	Composite	--
160	Apache Station	295	SI	Evaporation Pond	32.07416667	-109.9083333	80	--	--	Combined Ash	Composite	--
160	Apache Station	296	SI	Ash Pond 3	32.07611111	-109.905	32.6	720	22.08588957	Combined Ash	Composite	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
160	Apache Station	294	SI	Ash Pond 2	32.07222222	-109.9044444	32.6	720	22.08588957	Combined Ash	Composite	--
160	Apache Station	298	SI	Ash Pond 4	32.07589722	-109.9019528	32.6	693	21.25766871	Combined Ash	Composite	--
160	Apache Station	293	SI	Ash Pond 1	32.07222222	-109.9011111	32.6	717	21.99386503	Combined Ash	Composite	--
160	Apache Station	287	SI	Low Volume Wastewater Pond	--	--	42	618	14.71428571	Combined Ash	--	--
160	Apache Station	288	SI	Evaporation 1	--	--	--	823	--	Combined Ash	Composite	--
160	Apache Station	292	SI	Cooling Tower Blowdown Pond	--	--	--	7	--	Combined Ash	--	--
465	Arapahoe	310	SI	Ash Pump Pond	--	--	--	4	--	Combined Ash	--	--
465	Arapahoe	311	SI	Discharge Pond	--	--	1	7	7	Combined Ash	--	Excluded
465	Arapahoe	312	SI	North Storm Water/Process Water Pond	--	--	1	8	8	Combined Ash	--	Excluded
465	Arapahoe	313	SI	South Storm Water/Process Water Pond	--	--	1	14	14	Combined Ash	--	Excluded
465	Arapahoe	314	SI	South Ash Pond	--	--	1	14	14	Combined Ash	--	--
465	Arapahoe	315	SI	Emergency Pond	--	--	2	12	6	Combined Ash	--	Excluded
3178	Armstrong Power Station	926	LF	Closed Ash Site	40.915954	-79.47162	--	--	--	Combined Ash	None	Excluded
3178	Armstrong Power Station	921	LF	Active Ash Site	40.92222222	-79.47083333	--	--	--	Combined Ash	Yes	--
2076	Asbury	598	SI	Upper Pond	37.35972222	-94.58555556	17.6	--	--	--	None	--
2076	Asbury	597	SI	Lower Pond	37.36055556	-94.58166667	63	--	--	Combined Ash	None	--
2076	Asbury	596	SI	Ash Impoundment	--	--	92	--	--	Combined Ash	--	--
2706	Asheville Steam Electric Plant	649	SI	1964 Pond	35.4675	-82.54805556	45	1380	30.66666667	Combined Ash	Composite	--
2706	Asheville Steam Electric Plant	650	SI	1982 Pond	35.46472222	-82.54416667	46	1400	30.43478261	Combined Ash	None	--
2835	Ashtabula	1263	SI	Combined Treatment Basin	41.90833333	-80.7625	0.40174472	2.0087236	5	Combined Ash	None	--
1961	Austin Northeast	958	LF	Coal Ash Monofill	43.69878611	-92.96217222	--	--	--	Combined Ash	None	Excluded
2836	Avon Lake	1175	SI	Primary Ash Settling Basin	41.50531111	-82.05285	0.09022039	1.082644628	12	Combined Ash	None	--
2836	Avon Lake	1176	SI	Secondary Ash Settling Basin	41.50551667	-82.05202778	0.09022039	1.082644628	12	Combined Ash	None	--
2836	Avon Lake	975	LF	--	--	--	--	--	--	Combined Ash	--	--
995	Bailly	434	SI	Forebay	41.644381	-87.125098	0.14	2	14.28571429	Combined Ash	--	Excluded
995	Bailly	439	SI	Bottom Ash Pond	41.638356	-87.121326	1	2	2	Combined Ash	--	--
995	Bailly	436	SI	Primary 1	41.638387	-87.118974	6	41	6.833333333	Combined Ash	--	--
995	Bailly	437	SI	Primary 2	41.638357	-87.115771	6	47	7.833333333	Combined Ash	--	--
995	Bailly	438	SI	Secondary 2	41.638375	-87.11335	3	30	10	Combined Ash	--	--
995	Bailly	435	SI	Secondary 1	41.637988	-87.111999	2	18	9	Combined Ash	--	--
995	Bailly	939	LF	BGS South Landfill	41.63619167	-87.102575	--	--	--	Combined Ash	None	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
995	Bailly	952	LF	BGS North Landfill	41.63854167	-87.102575	--	--	--	Combined Ash	None	Excluded
889	Baldwin Energy Complex	391	SI	Ash Pond System	38.19286	-89.867555	492	3957	8.042682927	Combined Ash	--	--
3	Barry	252	SI	Barry Ash Pond	--	--	597	5965	9.991624791	Combined Ash	None	--
3982	Bay Front	946	LF	Woodfield	46.52152778	-90.93394444	10	216.9421489	21.69421489	Combined Ash	Yes	--
3982	Bay Front	945	LF	Deer Creek	46.47444444	-90.92805556	--	--	--	Combined Ash	None	Excluded
3982	Bay Front	162	SI	Polishing Pond	46.585243	-90.902906	0.41	3	7.317073171	Combined Ash	--	--
3982	Bay Front	163	SI	Surge Basin	46.585471	-90.902568	0.15	1	6.666666667	Combined Ash	--	--
2878	Bay Shore	1326	SI	Bottom Ash Pond	41.69611111	-83.43833333	0.99862259	5.492424242	5.5	Combined Ash	None	--
2878	Bay Shore	977	LF	--	--	--	85	--	--	Combined Ash	--	--
8042	Belews Creek Steam Station	1009	LF	Closed Pine Hall Road Landfill	36.28277778	-80.07861111	68	--	--	Combined Ash	None	Excluded
8042	Belews Creek Steam Station	243	SI	Active Ash Pond	36.296519	-80.075439	342	12654	37	Combined Ash	None	--
8042	Belews Creek Steam Station	1079	LF	Craig Road Ash Landfill	36.26888889	-80.0675	31	1190.96281	38.41815516	Combined Ash	Composite	--
8042	Belews Creek Steam Station	1010	LF	FGD Residual Landfill	36.27444444	-80.05666667	24	991.7355372	41.32231405	Combined Ash	Composite	--
6034	Belle River	1035	LF	Range Road	42.792242	-82.506315	--	--	--	Combined Ash	Yes	--
6034	Belle River	33	SI	Pond	--	--	--	--	--	Combined Ash	--	--
3325	Ben French	1379	SI	Ash Pond	44.08916667	-103.2641667	0.31955923	0.764876033	2.393534483	Combined Ash	Clay	--
645	Big Bend	347	SI	South Bottom Ash Pond	27.79111111	-82.39888889	6	--	--	Combined Ash	Composite	--
645	Big Bend	345	SI	North Bottom Ash	27.79166667	-82.39888889	5.7	--	--	Combined Ash	Composite	--
645	Big Bend	1164	LF	FGD Storage Area	27.78388889	-82.39638889	--	--	--	Combined Ash	None	--
645	Big Bend	343	SI	South Economizer Ash Pond	27.79083333	-82.395	6	--	--	Ash & Coal Refuse	Composite	--
645	Big Bend	344	SI	North Economizer Ash Pond	27.79166667	-82.395	5.5	--	--	Ash & Coal Refuse	Composite	--
645	Big Bend	342	SI	North Recycle Pond	--	--	3	--	--	FGD Waste	--	--
645	Big Bend	346	SI	Longterm Flyash Pond	--	--	12	--	--	Combined Ash	--	--
645	Big Bend	348	SI	Settling Pond	--	--	1	--	--	FGD Waste	--	--
645	Big Bend	349	SI	South Recycle Pond	--	--	9	--	--	FGD Waste	--	--
3497	Big Brown	784	LF	Class 3 bottom ash landfill Area B	31.81666667	-96.0725	1.96	19.6	10	Combined Ash	None	Excluded
3497	Big Brown	1179	SI	Bottom Ash Pond(s)	31.82	-96.06472222	19.2837466	227.3428834	11.78935238	Combined Ash	Clay	--
3497	Big Brown	1178	SI	Operating Pond	31.82805556	-96.05972222	14.6923783	229.135124	15.59550938	Combined Ash	Clay	Excluded
3497	Big Brown	776	LF	Class 3 bottom ash landfill Area A	31.829465	-96.054781	10.029	100.2899908	9.999999084	Combined Ash	None	Excluded
3497	Big Brown	790	LF	Ash Disposal Area 1	31.82944444	-96.05472222	128.595	3499.999587	27.21722918	Combined Ash	Clay	Excluded
3497	Big Brown	1177	SI	Lignite Retention Pond	31.82416667	-96.04972222	15.5	66.22651515	4.272678397	Combined Ash	Yes	Excluded
3497	Big Brown	1180	SI	Settling Pond	31.82444444	-96.04527778	0.51652893	5.155716253	9.981466667	Combined Ash	Yes	--
3497	Big Brown	791	LF	Ash Disposal Area 2	31.83555556	-96.04166667	331.993	4183.8843	12.60232686	Combined Ash	Clay	--
6055	Big Cajun 2	815	LF	Fly Ash	30.725	-91.38972222	175	2417.355372	13.81345927	Combined Ash	Clay	--

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Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6055	Big Cajun 2	36	SI	Bottom Ash Unit	--	--	66	1188	18	Combined Ash	Clay	--
6055	Big Cajun 2	37	SI	Fly Ash Unit	--	--	175	1750	10	Combined Ash	Clay	--
6055	Big Cajun 2	38	SI	Water Treatment Unit	--	--	32	585	18.28125	Combined Ash	Clay	--
1353	Big Sandy	521	SI	Horseford Run Dam	38.18666667	-82.6325	176	--	--	Combined Ash	Clay	--
1353	Big Sandy	523	SI	Fly Ash	38.186667	-82.6325	97	8302	85.58762887	Combined Ash	--	--
1353	Big Sandy	522	SI	Bottom Ash Complex	38.17111111	-82.62194444	6	40	6.666666667	Combined Ash	None	--
6098	Big Stone	1261	SI	Ash Pond	45.30001389	-96.51001944	2.1	21	10	Combined Ash	None	--
6098	Big Stone	814	LF	Ash Disposal Site	45.30443889	-96.49121667	109.4	5008.264463	45.77938266	Combined Ash	None	--
1904	Black Dog	799	LF	Ash Storage Area	44.82048056	-93.23732778	96	5539.026446	57.69819215	Combined Ash	None	Excluded
1904	Black Dog	593	SI	Settling Ponds 1-4	--	--	17	218	12.82352941	Combined Ash	None	--
6106	Boardman	1339	SI	Carty	45.701206	-119.809153	1450	38000	26.20689655	Combined Ash	None	Excluded
6106	Boardman	1341	SI	-999	45.701206	-119.809153	10.28	--	--	Combined Ash	Yes	Excluded
6106	Boardman	1340	SI	Settling Pond	45.691617	-119.806178	1.26262626	17.21763085	13.63636364	Combined Ash	None	Excluded
6106	Boardman	746	LF	Ash Pit	45.67916667	-119.7816667	240	--	--	Combined Ash	None	--
7790	Bonanza Power Plant	1207	SI	Emergency Holding Pond 1 (EHP-1)	40.08825	-109.513461	0.91827365	11.01928375	12	FGD Waste	Clay	--
7790	Bonanza Power Plant	735	LF	Bottom Ash	40.30555556	-109.45	50	977.0431589	19.54086318	Combined Ash	None	--
7790	Bonanza Power Plant	1208	SI	Emergency Holding Pond 2 (EHP-2)	40.08222222	-109.2802778	6.50505051	65.05050505	10	FGD Waste	None	--
7790	Bonanza Power Plant	1209	SI	Emergency Holding Pond 3 (EHP-3)	40.08361111	-109.28	4.93572084	68.87052342	13.95348837	FGD Waste	None	--
7790	Bonanza Power Plant	737	LF	Fly ash/Scrubber sludge	40.21138889	-109.2725	25	1709.825528	68.39302112	Combined Ash	None	--
1893	Boswell Energy Center	862	LF	SE Units 1,2 and 3 Dry Fly Ash Landfill	47.27277778	-93.67916667	110	4648.760331	42.26145755	Combined Ash	None	--
1893	Boswell Energy Center	591	SI	Inactive Bottom Ash Pond	47.26361111	-93.67083333	200	3413	17.065	Combined Ash	Clay	Excluded
1893	Boswell Energy Center	590	SI	Complex: Pond 3, 4, and Bottom Ash Pond	47.26972222	-93.66777778	645	11236	17.42015504	Combined Ash	Clay	--
1893	Boswell Energy Center	853	LF	Industrial Solid Waste Landfill	47.26194444	-93.66722222	336	--	--	Combined Ash	None	--
1893	Boswell Energy Center	796	LF	Hibbing Ash Cell	47.26305556	-93.66694444	20	--	--	Combined Ash	None	Excluded
1893	Boswell Energy Center	592	SI	Wastewater Treatment Plant Pond	47.25944444	-93.64972222	1.6	9	5.625	Combined Ash	Clay	--
703	Bowen	1103	LF	CCB Disposal Facility	34.13722222	-84.90222222	51.01	556.8415289	10.9163209	Combined Ash	Yes	--
703	Bowen	350	SI	Ash Pond	--	--	245	3676	15.00408163	Combined Ash	Clay	--
602	Brandon Shores	1289	SI	01 Lagoon	39.18444444	-76.53666667	0.66574839	4.017447199	6.034482759	Combined Ash	Composite	--
602	Brandon Shores	1290	SI	02 Lagoon	39.18444444	-76.53666667	0.66574839	4.017447199	6.034482759	Combined Ash	Composite	--
1619	Brayton Point	731	LF	Cells 1 - 8	41.71835083	-71.193638	--	--	--	Combined Ash	Yes	Excluded
1619	Brayton Point	1191	SI	EQ Basin	41.71312889	-71.19279833	0.40495868	3.682667585	9.09393424	Combined Ash	None	Excluded
1619	Brayton Point	1187	SI	Recycle	41.71313283	-71.19277083	1.81	--	--	Combined Ash	None	Excluded
1619	Brayton Point	1188	SI	Basin 1	41.716621	-71.191151	1.81	--	--	Combined Ash	Yes	Excluded
1619	Brayton Point	1189	SI	Basin 2	41.718367	-71.190972	1.81	--	--	Combined Ash	Yes	Excluded
1619	Brayton Point	824	LF	Cell 9	41.720545	-71.19089083	--	--	--	Combined Ash	Yes	Excluded

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Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
1619	Brayton Point	800	LF	Cell 1A	41.717322	-71.19035483	--	--	--	Combined Ash	Yes	Excluded
1619	Brayton Point	1190	SI	Basin 3	41.71997783	-71.189987	1.81	--	--	Combined Ash	None	Excluded
1619	Brayton Point	1194	SI	Basin A	41.712899	-71.18957183	0.48209366	2.838751148	5.888380952	Combined Ash	Composite	--
1619	Brayton Point	1193	SI	52 Basin	41.717186	-71.188797	1.68044077	14.35009183	8.539480874	Combined Ash	Composite	Excluded
1619	Brayton Point	1192	SI	51 Basin	41.71805556	-71.18833333	1.65748393	14.35009183	8.657756233	Combined Ash	Composite	Excluded
1619	Brayton Point	1195	SI	Basin B	41.712879	-71.18825983	0.73461892	6.137764004	8.35503125	Combined Ash	Composite	--
1619	Brayton Point	1196	SI	Basin C	41.71323683	-71.18783383	0.73461892	6.137764004	8.35503125	Combined Ash	Composite	--
1619	Brayton Point	761	LF	Cell 10	41.71899483	-71.18704483	--	--	--	Combined Ash	Yes	--
1619	Brayton Point	760	LF	Cell 10A	41.718431	-71.18656183	--	--	--	Combined Ash	Yes	Excluded
3796	Bremo Bluff	148	SI	West Ash Pond	37.71111111	-78.29222222	17	290	17.05882353	Combined Ash	None	--
3796	Bremo Bluff	149	SI	North Ash Pond	37.70805556	-78.27833333	62	4300	69.35483871	Combined Ash	None	--
6094	Bruce Mansfield	79	SI	Little Blue Run Dam	40.62781667	-80.51291667	770	65000	84.41558442	Combined Ash	None	--
6094	Bruce Mansfield	75	SI	North LDS Pond (N-LDS)	40.63643333	-80.41331111	3.2	38.5	12.03125	Combined Ash	None	--
6094	Bruce Mansfield	78	SI	South LDS Pond (S-LDS)	40.63603611	-80.41256667	3.1	35.3	11.38709677	Combined Ash	None	--
6094	Bruce Mansfield	76	SI	West HDS Pond (W-HPDS)	40.63459444	-80.41128333	2.9	39.5	13.62068966	Combined Ash	None	--
6094	Bruce Mansfield	77	SI	East HDS (Decommissioned in 2003) (Add this unit to DB)	--	--	--	--	--	--	None	--
2720	Buck	672	SI	Additional Primary Cell Basin	35.70431667	-80.37264167	73.5	2645	35.98639456	Combined Ash	None	--
2720	Buck	671	SI	Old Primary Cell	35.70537778	-80.36640833	46	1610	35	Combined Ash	None	--
2720	Buck	673	SI	Secondary Pond	35.70982222	-80.36273611	14.5	510	35.17241379	Combined Ash	None	--
3396	Bull Run	889	LF	East/West Dredge Cell	36.006672	-84.14839	--	--	--	Combined Ash	None	Excluded
3396	Bull Run	890	LF	Fly Ash Stack	36.02506667	-84.14698889	--	--	--	Combined Ash	None	--
3396	Bull Run	121	SI	Bottom Ash Disposal Area 1	--	--	32	543	16.96875	Combined Ash	--	--
3396	Bull Run	122	SI	Fly Ash Pond & Stilling Basin Area 2	--	--	49	1674	34.16326531	Combined Ash	--	--
3396	Bull Run	123	SI	Gypsum Disposal Area 2A	--	--	42	1700	40.47619048	Combined Ash	--	--
3396	Bull Run	124	SI	Dry Fly Ash Disposal Area	--	--	50	2975	59.5	Combined Ash	--	--
1104	Burlington	507	SI	Ash Seal & Storm Water Pond	--	--	4	68	17	Combined Ash	None	Excluded
1104	Burlington	508	SI	Upper Ash Pond	--	--	13	133	10.23076923	Combined Ash	None	--
1104	Burlington	509	SI	Economizer Ash Pond	--	--	11	166	15.09090909	Combined Ash	None	--
1104	Burlington	510	SI	Lower Ash Pond	--	--	23	114	4.956521739	Combined Ash	None	--
1104	Burlington	511	SI	Main Ash Pond	--	--	17	85	5	Combined Ash	None	--
676	C D McIntosh Jr	885	LF	Northeast Landfill	28.08472222	-81.91722222	17.3	1106.97888	63.98721848	Combined Ash	None	Excluded
676	C D McIntosh Jr	888	LF	Landfill (active)	28.08333333	-81.91666667	48.3	5311.753903	109.9742009	Combined Ash	None	--
468	Cameo	316	SI	Process Water Retention Pond	--	--	--	2	--	Combined Ash	--	Excluded

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Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
468	Cameo	317	SI	Ash Silo Storm Water Retention Pond	--	--	--	1	--	Combined Ash	--	Excluded
3280	Canadys Steam	107	SI	Inactive Ash Pond	33.07416667	-80.62194444	80	1000	12.5	Combined Ash	None	--
3280	Canadys Steam	108	SI	Polishing Pond	33.075	-80.61722222	3.5	--	--	--	None	--
3280	Canadys Steam	109	SI	Ash Pond	33.07083333	-80.61527778	95	1407	14.81052632	Combined Ash	None	--
1363	Cane Run	869	LF	Cane Run Special Waste Landfill	38.175	-85.89444444	--	--	--	Combined Ash	None	--
1363	Cane Run	538	SI	Main Ash Pond/E-Pond	38.1775	-85.8875	40	868	21.7	Combined Ash	None	--
1363	Cane Run	541	SI	Dead Storage Pond	38.18345556	-85.88604167	5	--	--	FGD Waste	None	--
1363	Cane Run	540	SI	Basin Pond	38.18305556	-85.88472222	5	--	--	FGD Waste	None	--
1363	Cane Run	539	SI	Clearwell Pond	--	--	1	--	--	FGD Waste	--	--
1363	Cane Run	542	SI	Emergency Pond	--	--	2	--	--	FGD Waste	--	--
2708	Cape Fear Steam Electric Plant	654	SI	1956 Ash Pond	35.59709167	-79.05053333	--	--	--	Combined Ash	None	Excluded
2708	Cape Fear Steam Electric Plant	652	SI	1963 Ash Pond	35.58801667	-79.05015	--	--	--	Combined Ash	None	Excluded
2708	Cape Fear Steam Electric Plant	655	SI	1970 Ash Pond	35.582975	-79.04858333	50	--	--	Combined Ash	None	Excluded
2708	Cape Fear Steam Electric Plant	651	SI	1978 Ash Pond	35.58784167	-79.04622222	43	1161	27	Combined Ash	None	--
2708	Cape Fear Steam Electric Plant	653	SI	1985 Ash Pond	35.59012778	-79.04109444	65	1764	27.13846154	Combined Ash	None	--
3644	Carbon Plant	905	LF	Original Landfill	39.71293056	-110.8653556	--	--	--	Combined Ash	None	Excluded
3644	Carbon Plant	1387	SI	South Settling Pond	39.72472222	-110.8638889	1.12759412	14.40082645	12.77128548	Combined Ash	None	--
3644	Carbon Plant	1388	SI	North Settling Pond	39.72472222	-110.8638889	0.55151515	2.829017447	5.12953713	Combined Ash	None	--
3644	Carbon Plant	876	LF	Ash Landfill	39.708785	-110.861003	11.7739066	--	--	Combined Ash	None	--
2828	Cardinal	694	SI	Bottom Ash Complex	40.237992	-80.659561	19	350	18.42105263	Combined Ash	None	--
2828	Cardinal	899	LF	FAR 1 Residual Waste Landfill	40.27202634	-80.65446374	--	--	--	Combined Ash	Yes	--
2828	Cardinal	693	SI	Fly Ash Reservoir 2	40.266333	-80.646583	139	11350	81.65467626	Combined Ash	None	--
1001	Cayuga	838	LF	Cayuga RWS 1 Landfill	39.91472222	-87.43388889	80	7376.28942	92.20361775	Combined Ash	Composite	--
1001	Cayuga	454	SI	Lined Ash Disposal Pond - Cell #1	39.91916667	-87.42388889	40	1400	35	Combined Ash	Composite	--
1001	Cayuga	457	SI	Ash Disposal Area #1	39.91472222	-87.42083333	26	260	10	Combined Ash	None	--
1001	Cayuga	455	SI	Primary Ash Settling Basin	39.91416667	-87.41666667	15	225	15	Combined Ash	None	--
1001	Cayuga	456	SI	Secondary Ash Settling Basin	39.91361111	-87.41416667	3	36	12	Combined Ash	None	--
1571	Chalk Point LLC	836	LF	brandywine	38.70583333	-76.80277778	596	2872.31405	4.819318875	Combined Ash	Yes	--
1571	Chalk Point LLC	1104	LF	controlled storage area	38.559166	-76.688333	--	--	--	Combined Ash	Yes	--
2169	Chamois Power Plant	1288	SI	Ash Pond #002	38.68194444	-91.75861111	2.75482094	24.79338843	9	Combined Ash	None	--
56	Charles R. Lowman	273	SI	Units 2-3 Pond	31.48694444	-87.91611111	29	629	21.68965517	Combined Ash	None	--
56	Charles R. Lowman	270	SI	Scrubber Waste Pond	31.48972222	-87.91416667	36	760	21.11111111	FGD Waste	None	--
56	Charles R. Lowman	272	SI	#1 Bottom Ash Pond	31.485	-87.91305556	16.5	330	20	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
56	Charles R. Lowman	271	SI	Process Waste Pond	31.49166667	-87.91222222	6	--	--	Combined Ash	None	--
56	Charles R. Lowman	900	LF	--	--	--	--	--	--	Combined Ash	--	--
469	Cherokee	318	SI	Center Ash Pond	--	--	1	10	10	Combined Ash	--	--
469	Cherokee	319	SI	West Polishing Pond	--	--	1	16	16	Combined Ash	--	--
469	Cherokee	320	SI	West Ash Pond	--	--	--	8	--	Combined Ash	--	--
469	Cherokee	321	SI	Emergency Spill Pond	--	--	--	5	--	--	--	--
469	Cherokee	322	SI	East Ash Pond	--	--	--	8	--	Combined Ash	--	--
469	Cherokee	323	SI	East Polishing Pond	--	--	1	16	16	Combined Ash	--	--
3803	Chesapeake Energy Center	152	SI	Bottom Ash/Sedimentation Pond	36.76205833	-76.30375	9.7	77	7.93814433	Combined Ash	None	--
3803	Chesapeake Energy Center	865	LF	ash landfill	36.76444444	-76.3025	--	--	--	Combined Ash	Yes	--
3797	Chesterfield	150	SI	Lower (Old) Ash Pond	37.37277778	-77.38055556	49	740	15.10204082	Combined Ash	None	--
3797	Chesterfield	151	SI	Upper (New) Ash Pond	37.37277778	-77.36472222	112	10240	91.42857143	Combined Ash	None	--
8226	Cheswick Power Plant	1099	LF	Lefever	40.581433	-79.832236	--	--	--	Combined Ash	Yes	--
8226	Cheswick Power Plant	1165	SI	Bottom Ash Emergency Pond	40.54361111	-79.79416667	0.57392103	4.965794307	8.6524	Combined Ash	Clay	--
8226	Cheswick Power Plant	1166	SI	Bottom Ash Recycle Pond	40.54444444	-79.79416667	0.65206612	3.208425161	4.920398535	Combined Ash	Clay	--
113	Cholla	280	SI	Bottom Ash Pond	34.955225	-110.2884306	80	2300	28.75	Combined Ash	None	--
113	Cholla	863	LF	Bottom Ash Monofill	34.96388889	-110.2861111	--	--	--	Combined Ash	None	--
113	Cholla	279	SI	Fly Ash Pond	34.93276389	-110.2648361	420	18000	42.85714286	Combined Ash	None	--
2721	Cliffside	675	SI	Active Ash Pond	35.21333333	-81.74972222	84	5025	59.82142857	Combined Ash	None	--
2721	Cliffside	674	SI	Retired Unit 1-4 Basin	--	--	14	--	--	Combined Ash	--	Excluded
2721	Cliffside	676	SI	Retired Unit 5 Basin	--	--	46	--	--	Combined Ash	--	Excluded
983	Clifty Creek	848	LF	Type I Fly Ash Landfill	38.733774	-85.437397	--	--	--	Combined Ash	Yes	--
983	Clifty Creek	847	LF	Type III Fly Ash Landfill	38.73565	-85.434455	--	--	--	Combined Ash	None	--
983	Clifty Creek	414	SI	South Fly Ash Runoff Pond Site 16	38.73379722	-85.43019722	40	--	--	Combined Ash	None	--
983	Clifty Creek	413	SI	West Bottom Ash Pond Site 16 (Regn 5)	38.74023611	-85.41523611	58	3600	62.06896552	Combined Ash	None	--
3775	Clinch River	849	LF	Clinch River Industrial Waste Landfill, Permit 223	36.924744	-82.203874	--	--	--	Combined Ash	Yes	--
3775	Clinch River	144	SI	Bottom Ash Pond 1A/1B	36.93722222	-82.19752778	12.8	1240	96.875	Combined Ash	None	--
3775	Clinch River	145	SI	Bottom Ash Pond 2	36.9385	-82.19083333	--	1332	--	Combined Ash	None	Excluded
7213	Clover	851	LF	Stage 1&2	36.87027778	-78.72083333	33	1441.115702	43.6701728	Combined Ash	Composite	Excluded
7213	Clover	850	LF	Stage 3	36.869618	-78.720416	80.5	4958.677686	61.59848057	Combined Ash	Composite	--
7213	Clover	1280	SI	North Sludge	36.87	-78.70166667	1.80153811	4.304132231	2.389143039	FGD Waste	Composite	--
7213	Clover	1281	SI	South Sludge	36.87	-78.70166667	1.80153811	10.76033058	5.972857598	FGD Waste	Composite	--
7213	Clover	1283	SI	Leachate 1	36.87194444	-78.69777778	38.22	--	--	Combined Ash	Yes	Excluded
7213	Clover	1284	SI	Leachate 2	36.87194444	-78.69777778	38.22	--	--	Combined Ash	Yes	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
7213	Clover	1282	SI	Coal/Limestone	36.86861111	-78.69444444	38.22	--	--	Ash & Coal Refuse	Yes	Excluded
6030	Coal Creek	854	LF	Section 26	47.44116472	-101.2160697	--	--	--	Combined Ash	Yes	--
6030	Coal Creek	868	LF	Section 31	47.42348333	-101.1640528	--	--	--	Combined Ash	Yes	Excluded
6030	Coal Creek	855	LF	Section 5	47.41005833	-101.1603578	--	--	--	Combined Ash	None	Excluded
6030	Coal Creek	1119	LF	Section 32	47.42028056	-101.1581611	220	14256.1983	64.80090136	Combined Ash	Yes	--
6030	Coal Creek	29	SI	Ash Pond 91	47.37609	-101.143559	72	249	3.458333333	Combined Ash	--	--
6030	Coal Creek	857	LF	SW Section 16	47.37834778	-101.1317489	--	--	--	Combined Ash	Yes	Excluded
6030	Coal Creek	30	SI	Upstream Raise/Ash Pond 92/SW Section 16	47.380215	-101.129303	90	769	8.544444444	Combined Ash	--	--
6030	Coal Creek	852	LF	SE Section 16	47.37575556	-101.1258111	70	2913.22314	41.61747343	Combined Ash	Yes	--
861	Coffeen	846	LF	Landfill	39.06930556	-89.40025	--	--	--	Combined Ash	Yes	--
861	Coffeen	380	SI	Gypsum Management Facility Recycle Pond	39.06624722	-89.39559722	17	243	14.29411765	FGD Waste	Composite	--
861	Coffeen	379	SI	Recycle Pond	39.05831667	-89.39442222	23	500	21.73913043	Combined Ash	None	Excluded
47	Colbert	859	LF	#5 Dry Stack (fly ash)	34.73305556	-87.83408333	--	--	--	Combined Ash	None	--
47	Colbert	258	SI	Disposal Area 5 Basin	--	--	12	372	31	Combined Ash	--	--
47	Colbert	259	SI	Disposal Area 5	--	--	75	5455	72.73333333	Combined Ash	--	--
47	Colbert	260	SI	Ash Pond 4	--	--	52	1364	26.23076923	Combined Ash	--	--
6178	Coleto Creek	182	SI	Primary Ash Pond	28.72472222	-97.20916667	190	2700	14.21052632	Combined Ash	Clay	--
6178	Coleto Creek	181	SI	Secondary Settling Pond	28.72861111	-97.20638889	10	300	30	Combined Ash	Clay	--
6076	Colstrip	49	SI	Units 1 & 2 Stage Two Evaporation Ponds (STEP)	45.9055	-106.6442222	176	4370	24.82954545	Combined Ash	Composite	--
6076	Colstrip	50	SI	Units 1 & 2 A Pond	45.87916667	-106.6188889	14	245	17.5	Combined Ash	None	--
6076	Colstrip	52	SI	Units 1 & 2 Bottom Ash Pond	45.88138889	-106.61875	7	73	10.42857143	Combined Ash	Composite	--
6076	Colstrip	51	SI	Units 3 & 4 Effluent Holding Pond (EHP)	45.87027778	-106.5482222	367	17000	46.32152589	Combined Ash	None	--
6076	Colstrip	46	SI	Units 3 & 4 Scrubber Drain Collection Pond	--	--	6	72	12	Combined Ash	--	Excluded
6076	Colstrip	47	SI	Units 3 & 4 Bottom Ash Pond	--	--	8	38	4.75	Combined Ash	--	--
6076	Colstrip	48	SI	Units 1 & 2 B Fly Ash Pond	--	--	10	196	19.6	Combined Ash	--	--
6076	Colstrip	53	SI	Units 3 & 4 Scrubber Wash Tray Pond	--	--	8	85	10.625	Combined Ash	--	Excluded
10784	Colstrip Energy LP	860	LF	CELP	45.97886111	-106.6635	--	--	--	Combined Ash	None	--
10784	Colstrip Energy LP	861	LF	CELP	45.97533333	-106.6594444	--	--	--	Combined Ash	None	Excluded
2123	Columbia	1213	SI	Ash Settling Pond	38.96584333	-92.31849028	8.5	45	5.294117647	Combined Ash	None	--
8023	Columbia	1136	LF	Ash Pond Disposal Facility	43.48969444	-89.42175	--	--	--	Combined Ash	None	Excluded
8023	Columbia	1135	LF	Dry Ash Disposal Facility	43.48727778	-89.41205556	--	--	--	Combined Ash	Yes	--
8023	Columbia	239	SI	Landfill Storm Water Pond	--	--	11	11	1	Combined Ash	Composite	Excluded
8023	Columbia	240	SI	Secondary Ash Pond	--	--	16	204	12.75	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
8023	Columbia	241	SI	Polishing Pond	--	--	1	5	5	Combined Ash	None	--
8023	Columbia	242	SI	Primary Ash Pond	--	--	9	72	8	Combined Ash	None	--
470	Comanche	1137	LF	Comanche ADF	38.20170556	-104.5825083	280	18882.02479	67.43580283	Combined Ash	None	--
470	Comanche	324	SI	Ash Pond #2	--	--	2	12	6	FGD Waste	--	--
470	Comanche	325	SI	Polishing Pond (#4)	--	--	2	12	6	Combined Ash	--	--
470	Comanche	326	SI	Ash Pond #3	--	--	2	12	6	Combined Ash	--	--
470	Comanche	327	SI	Ash Pond #1	--	--	2	12	6	FGD Waste	--	--
470	Comanche	328	SI	Ash Disposal Facility (ADF) Stormwater Retention Pond	--	--	1	8	8	Combined Ash	--	--
3118	Conemaugh	1138	LF	Stage I	40.41111111	-79.07166667	--	--	--	Combined Ash	None	Excluded
3118	Conemaugh	864	LF	Stage II	40.40666667	-79.07027778	434	50826.44628	117.1116274	Combined Ash	Yes	--
3118	Conemaugh	1338	SI	Bottom Ash Final Settling Pond - D	40.38277778	-79.06333333	0.83677686	6.198347107	7.407407407	Combined Ash	Clay	--
3118	Conemaugh	1337	SI	Bottom Ash Final Settling Pond - C	40.38305556	-79.06333333	0.83677686	6.198347107	7.407407407	Combined Ash	Clay	--
3118	Conemaugh	1336	SI	Bottom Ash Final Settling Pond - B	40.38361111	-79.06333333	0.83677686	6.198347107	7.407407407	Combined Ash	Clay	--
3118	Conemaugh	1335	SI	Bottom Ash Sluice Recycle Pond - A	40.38388889	-79.06333333	0.83677686	6.198347107	7.407407407	Combined Ash	Clay	--
3118	Conemaugh	1334	SI	Cooling Tower Desilting Basin	40.38555556	-79.05777778	9.524	--	--	Combined Ash	Yes	Excluded
2840	Conesville	701	SI	Ash Pond Complex	40.18833333	-81.86972222	82	865	10.54878049	Combined Ash	None	--
2840	Conesville	1005	LF	--	--	--	52	2252.066116	43.30896376	Combined Ash	Composite	--
2840	Conesville	1006	LF	--	--	--	50	2835.743802	56.71487603	Combined Ash	--	Excluded
1710	Consumers Energy - J.H. Campbell	572	SI	EPRI 4	--	--	267	4276.859504	16.01820039	Ash & Coal Refuse	--	Excluded
1710	Consumers Energy - J.H. Campbell	967	LF	--	--	--	17.96	620.298967	34.5378044	Combined Ash	Composite	--
1710	Consumers Energy - J.H. Campbell	985	LF	--	--	--	18	657.1338843	36.50743802	Combined Ash	Composite	--
1710	Consumers Energy - J.H. Campbell	998	LF	--	--	--	17.4	783.1828512	45.01050869	Combined Ash	Composite	--
1710	Consumers Energy - J.H. Campbell	999	LF	--	--	--	17	1266.432645	74.49603792	Combined Ash	Composite	--
1384	Cooper Station.	973	LF	--	--	--	--	--	--	Combined Ash	--	--
7210	Cope	866	LF	Cope Landfill	33.37005556	-81.04075	340	14876.03306	43.75303841	Combined Ash	None	--
6177	Coronado Generating Station	180	SI	Evaporation Pond/Dam	34.55833333	-109.2952778	290	5900	20.34482759	Combined Ash	None	--
6177	Coronado Generating Station	867	LF	Ash Disposal	34.54766667	-109.28325	230	34435.26171	149.7185292	Combined Ash	None	--
6177	Coronado Generating Station	835	LF	N/A	--	--	--	--	--	Combined Ash	--	Excluded
8222	Coyote	250	SI	Ash Pond	47.218595	-101.814109	4	40	10	Combined Ash	--	--
8222	Coyote	248	SI	Nelson Pond	47.217021	-101.80979	5	92	18.4	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
8222	Coyote	249	SI	Sluice Pond	47.217006	-101.805935	1	5	5	Combined Ash	--	--
8222	Coyote	826	LF	Black Pit	47.22230278	-101.7959417	43	1285.53719	29.89621372	Combined Ash	Clay	Excluded
8222	Coyote	833	LF	Blue Pit	47.21148889	-101.7883222	224	5224.416322	23.32328715	Combined Ash	Clay	--
8222	Coyote	825	LF	Green Pit	47.22711667	-101.7874778	98.3	607.4380165	6.179430484	Combined Ash	Clay	Excluded
8222	Coyote	856	LF	Purple Pit	47.22349722	-101.7578444	155.7	1548.370064	9.944573309	Combined Ash	None	--
2549	CR Huntley Generating Station	1100	LF	Huntley Ash Landfill	42.98833333	-78.92805556	--	--	--	Combined Ash	Yes	--
2549	CR Huntley Generating Station	645	SI	North Equalization Basin	42.96678611	-78.92686111	2	9	4.5	Combined Ash	--	--
2549	CR Huntley Generating Station	644	SI	South Equalization Basin	42.966509	-78.926638	2	6	3	Combined Ash	--	--
2549	CR Huntley Generating Station	643	SI	South Settling Pond System	42.96695	-78.925467	7	48	6.857142857	Combined Ash	--	--
6021	Craig	27	SI	Concentrator Decant Basin #1	--	--	--	1	--	Combined Ash	--	Excluded
6021	Craig	28	SI	Concentrator Decant Basin #2	--	--	--	1	--	FGD Waste	--	Excluded
6021	Craig	974	LF	--	--	--	18	--	--	Combined Ash	Clay	Excluded
867	Crawford	387	SI	EPRI 2	--	--	--	--	--	--	--	Excluded
753	Crisp Plant	1265	SI	Crisp Plant	31.84490556	-83.94425	6.82	--	--	Combined Ash	None	--
641	Crist	1276	SI	Interim Landfill Pond	30.568	-87.23752778	2.24517906	8.980716253	4	Combined Ash	None	--
641	Crist	1139	LF	Ash Landfill	30.56383333	-87.23536111	68	2364.554637	34.77286231	Combined Ash	Yes	--
641	Crist	1275	SI	Ash Landfill Pond	30.568	-87.23527778	2.68365473	40.25482094	15	Combined Ash	None	Excluded
641	Crist	1278	SI	Gypsum Area 1 SedimentationPond	30.57	-87.2325	4.75206612	95.04132231	20	FGD Waste	Composite	Excluded
641	Crist	1277	SI	Gypsum Area 1 Cell 2	30.56833333	-87.232	15.610652	402.5799128	25.78879559	FGD Waste	Composite	--
641	Crist	1279	SI	Gypsum Area 1 Return Water Pond	30.56888889	-87.23055556	3.52157943	52.82369146	15	FGD Waste	Composite	Excluded
641	Crist	1273	SI	Governor's Island Ash Pond	30.56413056	-87.22170556	13.51	--	--	Ash & Coal Refuse	None	Excluded
641	Crist	1274	SI	Ash Pond	30.56216667	-87.22011111	16.3	240.9142562	14.78001572	Ash & Coal Refuse	None	--
130	Cross	827	LF	Poz-O-Tec	33.38416667	-80.1175	91	2727.272727	29.97002997	Combined Ash	None	--
130	Cross	285	SI	Gypsum Pond	33.36791667	-80.10877778	1	6	6	FGD Waste	Clay	--
130	Cross	284	SI	Bottom Ash 1	33.37088889	-80.10466667	12.8	230	17.96875	Combined Ash	Clay	--
130	Cross	286	SI	Bottom Ash 2	33.37361111	-80.10072222	79	1158	14.65822785	Combined Ash	Clay	--
130	Cross	828	LF	-999	--	--	--	--	--	Combined Ash	--	--
130	Cross	829	LF	-999	--	--	--	--	--	Combined Ash	--	--
130	Cross	830	LF	-999	--	--	--	--	--	Combined Ash	--	--
628	Crystal River Power Plant	831	LF	Landfill-1	28.96666667	-82.68722222	--	--	--	Combined Ash	None	--
3399	Cumberland	125	SI	Gypsum Storage Area (North/South)	--	--	170	12397	72.92352941	FGD Waste	--	--
3399	Cumberland	126	SI	Dry Ash Stack	--	--	110	7810	71	Combined Ash	--	--
3399	Cumberland	127	SI	Ash Pond	--	--	50	1240	24.8	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
3399	Cumberland	978	LF	--	--	--	--	--	--	Combined Ash	--	--
6823	D B Wilson	845	LF	Phase II Landfill	37.46083333	-87.08888889	--	--	--	Combined Ash	None	--
6823	D B Wilson	832	LF	Phase I Landfill	37.46027778	-87.085	--	--	--	Combined Ash	None	--
1702	D.E. Karn	571	SI	DE Karn 1 and 2 Solid Waste Disposal Area	43.64583333	-83.8325	--	--	--	--	None	--
1702	D.E. Karn	570	SI	Pond A	--	--	174	4423	25.41954023	Combined Ash	None	--
1702	D.E. Karn	1004	LF	--	--	--	40	1022.727273	25.56818182	Combined Ash	--	--
1385	Dale Station	558	SI	Dale Ash Pond #3	37.885	-84.26333333	1.6	--	--	Combined Ash	--	--
1385	Dale Station	560	SI	Dale Ash Pond #2	37.88388889	-84.26222222	8	112	14	Combined Ash	None	--
1385	Dale Station	559	SI	Dale Ash Pond #4	37.87777778	-84.26166667	10.7	143	13.36448598	Combined Ash	None	--
963	Dallman	399	SI	Dallman Ash Pond	39.76722222	-89.6	34	682	20.05882353	Combined Ash	None	--
963	Dallman	834	LF	Unit 2	39.769459	-89.597701	22	1115.702479	50.71374906	Combined Ash	Yes	--
963	Dallman	823	LF	Unit 1	39.766279	-89.596662	--	--	--	Combined Ash	None	Excluded
2723	Dan River	678	SI	Primary Pond	36.489167	-79.716111	27	477	17.66666667	Combined Ash	None	Excluded
2723	Dan River	679	SI	Dry Storage Basin, Dredge Pond Dike	36.48946389	-79.71566944	--	--	--	--	--	Excluded
2723	Dan River	677	SI	Secondary Pond	36.491944	-79.713056	12	187	15.58333333	Combined Ash	None	Excluded
2480	Danskammer Generating Station	1140	LF	Danskammer Solid Waste Management Facility	41.57666667	-73.96944444	21.8	1167.84045	53.57066284	Combined Ash	Composite	Excluded
4158	Dave Johnston Plant	4	SI	Blowdown Canal	42.84222222	-105.7805556	1	3	3	Combined Ash	None	Excluded
4158	Dave Johnston Plant	5	SI	4B Ash Pond	42.84222222	-105.7805556	20	145	7.25	Combined Ash	Composite	--
4158	Dave Johnston Plant	6	SI	4A Ash Pond	42.84222222	-105.7805556	20	145	7.25	Combined Ash	Composite	--
4158	Dave Johnston Plant	7	SI	1A Ash Pond	42.84222222	-105.7805556	13	115	8.846153846	Combined Ash	Composite	Excluded
4158	Dave Johnston Plant	8	SI	4 Clear Pond	42.84222222	-105.7805556	6.4	50	7.8125	Combined Ash	None	--
4158	Dave Johnston Plant	9	SI	1B Clear Pond	42.84222222	-105.7805556	2	20	10	Combined Ash	None	--
4158	Dave Johnston Plant	10	SI	1B Ash Pond	42.84222222	-105.7805556	13	112	8.615384615	Combined Ash	Composite	--
4158	Dave Johnston Plant	11	SI	1A Clear Pond	42.84222222	-105.7805556	2	16	8	Combined Ash	None	--
4158	Dave Johnston Plant	837	LF	Dave Johnston Plant Industrial Landfill	42.84611111	-105.7630556	555	20661.15702	37.22730995	Combined Ash	None	--
996	Dean H Mitchell	446	SI	Secondary 2	41.638407	-87.410366	0.48	2	4.166666667	Combined Ash	--	Excluded
996	Dean H Mitchell	445	SI	Secondary 1	41.64043	-87.406511	0.52	3	5.769230769	Combined Ash	--	Excluded
996	Dean H Mitchell	443	SI	Primary 2	41.639964	-87.406162	1.7	31	18.23529412	Combined Ash	--	Excluded
996	Dean H Mitchell	444	SI	Primary 3	41.639408	-87.405385	1.9	31	16.31578947	Combined Ash	--	Excluded
996	Dean H Mitchell	447	SI	Primary 4	41.638818	-87.403168	2.3	34	14.7826087	Combined Ash	--	Excluded
996	Dean H Mitchell	442	SI	Primary 1	41.634588	-87.395399	1.4	22	15.71428571	Combined Ash	--	Excluded
996	Dean H Mitchell	440	SI	Bottom Ash Complex	--	--	--	--	--	Combined Ash	None	Excluded
996	Dean H Mitchell	441	SI	Fly Ash Pond	--	--	--	--	--	Combined Ash	None	Excluded
663	Deerhaven Generating Station	1141	LF	Fly Ash Landfill	29.764712	-82.397978	--	--	--	Combined Ash	Yes	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
663	Deerhaven Generating Station	1331	SI	CoolingTowerBlowdown&BottomAshPond	29.76472222	-82.39222222	2.81221304	52.8953168	18.80914286	Combined Ash	None	--
1572	Dickerson	839	LF	Westland Ash Storage Site	39.19222222	-77.4575	206	7809.917355	37.91222017	Combined Ash	Yes	--
51	Dolet Hills	265	SI	Surge Pond No. 1	32.02997222	-93.57208333	2.25	29	12.88888889	Combined Ash	Clay	--
51	Dolet Hills	840	LF	Flyash/FGD Landfill	32.0125	-93.57083333	109	5268.595041	48.33573432	Combined Ash	Yes	--
51	Dolet Hills	269	SI	Auxiliary Surge Pond	32.02963889	-93.57052778	1.54	2	1.298701299	Combined Ash	Clay	--
51	Dolet Hills	267	SI	Surge Pond No. 2	32.02875	-93.56772222	4.8	18	3.75	Combined Ash	Clay	--
51	Dolet Hills	263	SI	Landfill Storm Water/Leachate	32.02041667	-93.56661111	1.32	--	--	Combined Ash	Clay	--
51	Dolet Hills	264	SI	Ash Basin No. 1	32.03044444	-93.56211111	30	578	19.26666667	Combined Ash	Clay	--
51	Dolet Hills	266	SI	Secondary Basin	32.03277778	-93.56208333	6.5	75	11.53846154	Combined Ash	None	--
51	Dolet Hills	268	SI	Ash Basin No. 2	32.0355	-93.56080556	31	501	16.16129032	Combined Ash	Clay	--
3317	Dolphus M Grainger	116	SI	Ash Pond 1	33.82709722	-79.04948889	42.5	298	7.011764706	Combined Ash	None	Excluded
3317	Dolphus M Grainger	115	SI	Ash Pond 2	33.82227778	-79.04708611	39	429	11	Combined Ash	None	Excluded
1046	Dubuque	476	SI	Ash Channel	--	--	--	10	--	Combined Ash	--	--
6016	Duck Creek	842	LF	Landfill	40.52027778	-89.98833333	169	--	--	Combined Ash	Composite	--
6016	Duck Creek	18	SI	Recycle Pond	--	--	--	--	--	--	Clay	--
6016	Duck Creek	19	SI	Ash Pond 1	--	--	58	1900	32.75862069	Combined Ash	None	Excluded
6016	Duck Creek	20	SI	Ash Pond 2	--	--	85	1000	11.76470588	Combined Ash	None	Excluded
2554	Dunkirk Generating Plant	843	LF	SWMF	42.497091	-79.305372	55.96	1660	29.66404575	Combined Ash	Composite	--
2554	Dunkirk Generating Plant	646	SI	Northwest Pump House	--	--	--	--	--	Combined Ash	--	Excluded
2554	Dunkirk Generating Plant	647	SI	Equalization Basin	--	--	--	2	--	Combined Ash	--	--
2554	Dunkirk Generating Plant	648	SI	Settling Pond System	--	--	2	12	6	Combined Ash	--	--
26	E. C. Gaston	257	SI	Ash Pond Dam	--	--	339	18888	55.71681416	Combined Ash	None	--
1355	E.W. Brown	524	SI	Ash Pond	37.7875	-84.71888889	75.12	--	--	Combined Ash	Composite	--
1355	E.W. Brown	525	SI	Auxiliary Pond	37.78109167	-84.71879167	25.7	515	20.03891051	Combined Ash	Composite	--
991	Eagle Valley	426	SI	C Pond	39.48408611	-86.42719444	8	102	12.75	Combined Ash	None	--
991	Eagle Valley	428	SI	B Pond	39.48254167	-86.42694444	13	177	13.61538462	Combined Ash	None	--
991	Eagle Valley	427	SI	A Pond	39.48098611	-86.42684444	19	400	21.05263158	Combined Ash	None	--
991	Eagle Valley	425	SI	E Pond	39.48441944	-86.4231	4	45	11.25	Combined Ash	None	Excluded
991	Eagle Valley	429	SI	D Pond	39.48308889	-86.42246389	16	370	23.125	Combined Ash	None	--
1217	Earl F Wisdom	844	LF	Ash Landfill	43.16133333	-95.25288889	--	--	--	Combined Ash	None	--
6018	East Bend Station	24	SI	East Bend Station Unit 1	38.90194444	-84.84111111	53.4	1277	23.91385768	Combined Ash	None	--
6018	East Bend Station	879	LF	East Landfill	38.90916667	-84.84027778	--	--	--	Combined Ash	Yes	--
6018	East Bend Station	23	SI	FGD Pond East	--	--	4	51	12.75	FGD Waste	--	--
6018	East Bend Station	25	SI	FGD Pond West	--	--	4	45	11.25	FGD Waste	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2837	Eastlake	1262	SI	Combined Treatment Basin	41.67305556	-81.44305556	0.58539945	2.869605142	4.901960784	Combined Ash	None	--
2837	Eastlake	914	LF	North Park	--	--	--	--	--	Combined Ash	Yes	--
856	ED Edwards	378	SI	Pond 2 - Ash Pond Settling	40.59277778	-89.66722222	32	--	--	Combined Ash	None	--
856	ED Edwards	377	SI	Pond 3 - Clarification Pond	40.58972222	-89.66527778	23	--	--	Combined Ash	None	--
856	ED Edwards	376	SI	Ash Pond	--	--	89	1800	20.2247191	Combined Ash	None	--
4050	Edgewater	858	LF	I-43 ADF	43.69333333	-87.76416667	25	1026.260331	41.05041322	Combined Ash	Yes	--
4050	Edgewater	894	LF	Edgewater 1-4 Closed ADF	43.71138889	-87.71305556	--	--	--	Combined Ash	None	Excluded
4050	Edgewater	168	SI	B Pond	43.710917	-87.711869	1.93	19	9.844559585	Combined Ash	--	--
4050	Edgewater	165	SI	A Ponds (Two)	43.712168	-87.711684	4.4	44	10	Combined Ash	--	--
4050	Edgewater	164	SI	C Pond	43.71111	-87.711003	0.65	3	4.615384615	Combined Ash	--	--
4050	Edgewater	166	SI	I43 Coal Combustion landfill Contact Pond	43.717171	-87.710875	1.11	8	7.207207207	Combined Ash	--	Excluded
4050	Edgewater	169	SI	F Pond	43.710195	-87.704069	0.9	9	10	Combined Ash	--	--
4050	Edgewater	167	SI	Slag Pond	43.709357	-87.703924	1.8	10	5.555555556	Combined Ash	--	--
1004	Edwardsport	459	SI	Primary Ash Pond	38.80080556	-87.24330556	8	170	21.25	Combined Ash	None	--
1004	Edwardsport	458	SI	Secondary Ash Pond	38.80072222	-87.24302778	1	7	7	Combined Ash	None	--
1004	Edwardsport	971	LF	--	--	--	--	--	--	Combined Ash	--	--
1374	Elmer Smith Station	1234	SI	Pond #1	37.79491667	-87.06419444	1.60697888	24.1046832	15	Combined Ash	None	--
1374	Elmer Smith Station	1235	SI	Pond #2	37.79344444	-87.06313889	13.7741047	24.79338843	1.8	Combined Ash	None	--
1374	Elmer Smith Station	1237	SI	FGD Scrubber Purge basin	37.79722222	-87.06145	0.13774105	0.20661157	1.5	FGD Waste	None	--
1374	Elmer Smith Station	1236	SI	FGD Emergency Pond	37.79572222	-87.05869444	0.68870523	8.26446281	12	FGD Waste	Composite	--
3098	Elrama Power Plant	1342	SI	Ash Settling Pond 1	40.25333333	-79.92027778	2.13269054	29.34421488	13.7592465	Combined Ash	Yes	--
3098	Elrama Power Plant	1343	SI	Ash Settling Pond 2	40.25388889	-79.92027778	2.224	--	--	Combined Ash	Yes	--
3098	Elrama Power Plant	1344	SI	Ash Polishing Pond 4	40.25472222	-79.92027778	0.3902663	6.634527089	17	Combined Ash	Yes	--
3098	Elrama Power Plant	1345	SI	Scrubber Emergency Pond 5	40.25527778	-79.91972222	0.20661157	3.512396694	17	FGD Waste	Yes	Excluded
3098	Elrama Power Plant	895	LF	Fern Valley	40.28111111	-79.88972222	--	--	--	Combined Ash	Yes	Excluded
1832	Erickson Station	587	SI	Unit 1	42.687523	-84.653971	33	198	6	Combined Ash	--	--
87	Escalante	274	SI	Management Units 3 & 4 Bottom Ash	--	--	13	96	7.384615385	Combined Ash	--	--
87	Escalante	276	SI	Evaporation Pond 1a + 1b	--	--	2.3	14	6.086956522	FGD Waste	--	--
87	Escalante	277	SI	Emergency Scrubber Pond	--	--	0.8	3	3.75	FGD Waste	--	--
87	Escalante	278	SI	Evaporation Ponds 2-5	--	--	--	--	--	--	--	--
87	Escalante	275	SI	N/A	--	--	--	--	--	--	--	Excluded
87	Escalante	992	LF	--	--	--	97	573.9210285	5.916711634	Combined Ash	Clay	--
1012	F. B. Culley	466	SI	West Ash Pond	37.91198222	-87.32948472	18	620	34.44444444	Combined Ash	None	Excluded
1012	F. B. Culley	467	SI	East Pond	37.90922778	-87.32296111	7	372	53.14285714	Combined Ash	None	--
1218	Fair Station	896	LF	CIPCO landfill	41.46194444	-90.85888889	--	--	--	Combined Ash	Yes	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
1218	Fair Station	1184	SI	#2 ash pond	41.45833333	-90.825	1.20523416	13.25757576	11	Combined Ash	Clay	Excluded
1218	Fair Station	1183	SI	#1 ash pond	41.45833333	-90.82444444	2.26280992	24.89090909	11	Combined Ash	Clay	Excluded
6179	Fayette Power Project	183	SI	Management Unit 009	29.90944444	-96.75111111	30	600	20	Combined Ash	Clay	--
6179	Fayette Power Project	184	SI	Management Unit 002	29.91472222	-96.74055556	84	2293	27.29761905	Combined Ash	Clay	--
6179	Fayette Power Project	897	LF	CCB Landfill	--	--	23	552	24	Combined Ash	Yes	--
886	Fisk	1238	SI	Dewatering Pad	41.84916667	-87.65666667	0.25482094	0.126262626	0.495495495	Ash & Coal Refuse	None	Excluded
886	Fisk	1239	SI	Dewatering Bin Sump	41.84888889	-87.65638889	0.09182736	0.183654729	2	Ash & Coal Refuse	None	Excluded
886	Fisk	1240	SI	Equalization Basin (Flume)	41.84861111	-87.65472222	0.04820937	0.482093664	10	Ash & Coal Refuse	None	Excluded
6138	Flint Creek	898	LF	Ash landfill	36.259077	-94.514209	40	934.8657025	23.37164256	Combined Ash	Yes	--
6138	Flint Creek	173	SI	Secondary Bottom Ash Pond	--	--	4	24	6	Ash & Coal Refuse	--	--
6138	Flint Creek	174	SI	Primary Bottom Ash Pond	--	--	43	484	11.25581395	Ash & Coal Refuse	--	--
3943	Fort Martin Power Station	1143	LF	Gypsum Phase I Landfill	39.717275	-79.95	99.5	2169.421489	21.80323104	Combined Ash	Yes	--
3943	Fort Martin Power Station	1142	LF	Ash Landfill	39.71277778	-79.9425	99.5	2169.421489	21.80323104	Combined Ash	None	--
3943	Fort Martin Power Station	1181	SI	Wastewater Treatment Lagoon 1	39.709222	-79.930731	1.26262626	10.19283747	8.072727273	Combined Ash	None	Excluded
3943	Fort Martin Power Station	1182	SI	Wastewater Treatment Lagoon 2	39.709222	-79.930731	1.26262626	10.19283747	8.072727273	Combined Ash	None	Excluded
10343	Foster Wheeler Mt Carmel Cogen	901	LF	-999	--	--	--	--	--	Combined Ash	--	--
2442	Four Corners	638	SI	Low Volume Waste Water System Decant Cells	36.6831	-108.5124	45.1	435	9.645232816	Combined Ash	--	--
2442	Four Corners	915	LF	Dry Flyash Disposal Area	36.68583333	-108.5080556	--	--	--	Combined Ash	Yes	--
2442	Four Corners	639	SI	Lined Ash Impoundment	36.6849	-108.5066	75	2399	31.98666667	Combined Ash	Composite	--
2442	Four Corners	903	LF	Plant Disposal (Gridded)	36.68833333	-108.5063889	--	--	--	Combined Ash	None	--
2442	Four Corners	640	SI	Lined Water Impoundment	--	--	45	435	9.666666667	FGD Waste	Composite	--
2442	Four Corners	641	SI	Low Volume Waste Water Pond	--	--	14	137	9.785714286	Combined Ash	--	--
2442	Four Corners	642	SI	Upper Retention Sump	--	--	1	11	11	FGD Waste	--	--
1043	Frank E. Ratts	469	SI	Pond 4	38.51630556	-87.27	25	--	--	Combined Ash	--	--
1043	Frank E. Ratts	470	SI	Pond 3	38.51636111	-87.26682778	10	--	--	Combined Ash	--	--
1043	Frank E. Ratts	475	SI	Pond 2	38.51716667	-87.26455556	10	--	--	Combined Ash	--	--
1043	Frank E. Ratts	472	SI	Pond 1	38.51955556	-87.26347222	6	--	--	Combined Ash	None	--
1043	Frank E. Ratts	468	SI	Fly Ash Pond 3	--	--	25	--	--	Combined Ash	None	--
1043	Frank E. Ratts	471	SI	Bottom Ash Pond	--	--	6	40	6.666666667	Combined Ash	None	--
1043	Frank E. Ratts	473	SI	Fly Ash Pond 2	--	--	16	--	--	Combined Ash	None	--
1043	Frank E. Ratts	474	SI	Fly Ash Pond 1	--	--	10	--	--	Combined Ash	None	--
2718	G G Allen	670	SI	Active Ash Basin	35.17741389	-81.01114722	160	5915	36.96875	Combined Ash	None	--
2718	G G Allen	668	SI	North Dike - Active Ash Basin	35.18098611	-81.01024722	--	--	--	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2718	G G Allen	892	LF	Ash/Gypsum Landfill	35.18388889	-81.01	--	--	--	Combined Ash	Yes	--
2718	G G Allen	669	SI	East Dike - Active Ash Basin	35.17736944	-81.00711944	--	--	--	Combined Ash	None	--
7	Gadsden	253	SI	Ash Pond (NID #1428)	--	--	68	753	11.07352941	Combined Ash	--	--
3403	Gallatin	128	SI	Bottom Ash Pond A	--	--	269	4390	16.3197026	Combined Ash	--	--
3403	Gallatin	129	SI	Fly Ash Pond E	--	--	157	4401	28.03184713	Combined Ash	--	--
3403	Gallatin	130	SI	Stilling Pond B, C, D	--	--	55	372	6.763636364	Combined Ash	--	--
8102	General James M. Gavin	246	SI	Stingy Run Ash Disposal Pond	38.96430833	-82.14427222	324.5	23365	72.00308166	Ash & Coal Refuse	None	--
8102	General James M. Gavin	1144	LF	FGD Landfill	38.95555556	-82.14111111	225	1118.204775	4.969799	Combined Ash	Composite	--
8102	General James M. Gavin	247	SI	Bottom Ash Pond	38.93055556	-82.12083333	85	1530	18	Ash & Coal Refuse	None	--
4143	Genoa	1007	LF	--	--	--	--	--	--	Combined Ash	--	Excluded
4143	Genoa	1131	LF	--	--	--	100	--	--	Combined Ash	--	--
1091	George Neal North	909	LF	Neal North Landfill West	42.31888889	-96.37055556	--	--	--	Combined Ash	None	Excluded
1091	George Neal North	910	LF	Neal North Landfill East	42.31944444	-96.36638889	--	--	--	Combined Ash	None	Excluded
1091	George Neal North	906	LF	Neal North Landfill Active	42.31555556	-96.36611111	200	--	--	Combined Ash	Yes	--
1091	George Neal North	907	LF	--	--	--	--	--	--	Combined Ash	--	--
1091	George Neal North	908	LF	--	--	--	--	--	--	Combined Ash	--	--
1091	George Neal North	504	SI	Surface Impoundment 1	--	--	12	137	11.41666667	Combined Ash	None	--
1091	George Neal North	505	SI	Surface Impoundment 3	--	--	76	837	11.01315789	Combined Ash	None	--
1091	George Neal North	506	SI	Surface Impoundment 2	--	--	27	296	10.96296296	Combined Ash	None	--
7343	George Neal South	1332	SI	Air Heater Wash Pond	42.29722222	-96.35888889	2.8238292	16.94297521	6	Combined Ash	Composite	Excluded
7343	George Neal South	911	LF	Neal 4 Landfill	42.29916667	-96.34722222	32	521.546281	16.29832128	Combined Ash	None	--
6077	Gerald Gentleman	912	LF	Fossil Fuels Combustion Ash Landfill	41.07222222	-101.1497222	--	--	--	Combined Ash	Yes	--
1356	Ghent	528	SI	Gypsum Stacking Facility	38.75166667	-85.02777778	46	2758	59.95652174	FGD Waste	None	--
1356	Ghent	527	SI	Ash Treatment Basin #1	38.74861111	-85.02722222	120	4339	36.15833333	Combined Ash	None	--
1356	Ghent	529	SI	Ash Treatment Basin #2	38.73972222	-85.02305556	146	7190	49.24657534	Combined Ash	None	--
1356	Ghent	526	SI	Secondary Ash Treatment Basin	--	--	4	--	--	Combined Ash	--	--
1356	Ghent	530	SI	Gypsum Stack Surge/Reclaim Pond	--	--	8	--	--	FGD Waste	Clay	--
6136	Gibbons Creek Steam Electric Station	913	LF	Site A	30.63444444	-96.09305556	--	--	--	Combined Ash	Yes	--
6136	Gibbons Creek Steam Electric Station	1244	SI	Scrubber Sludge Pond	30.61136111	-96.07977778	7.64038108	122.0256198	15.97114313	FGD Waste	Composite	--
6136	Gibbons Creek Steam Electric Station	1241	SI	Ash Pond A	30.61680556	-96.07602778	10.617539	212.3507805	20	Combined Ash	Clay	--
6136	Gibbons Creek Steam Electric Station	1242	SI	Ash Pond B	30.61680556	-96.07602778	10.617539	212.3507805	20	Combined Ash	Clay	--
6136	Gibbons Creek Steam Electric Station	1243	SI	Ash Pond C	30.61680556	-96.07602778	10.617539	212.3507805	20	Combined Ash	Clay	--
6136	Gibbons Creek Steam Electric Station	881	LF	Site F	30.63833333	-96.06666667	--	--	--	Combined Ash	Yes	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6113	Gibson	902	LF	S Aggregate Landfill (26-06)	38.33638889	-87.78444444	378	52189.51871	138.0675098	Combined Ash	Composite	--
6113	Gibson	86	SI	North Settling Basin	38.37916667	-87.76333333	15	150	10	--	None	--
6113	Gibson	84	SI	North Ash Pond	38.37722222	-87.75805556	25	350	14	Combined Ash	None	--
6113	Gibson	904	LF	Aggregate Landfill (26-02)	38.37222222	-87.75194444	131.3	11968.00413	91.15006955	Combined Ash	Composite	--
6113	Gibson	83	SI	East Pond #2	38.37666667	-87.74277778	105	1733	16.5047619	Combined Ash	None	--
6113	Gibson	82	SI	East Settling Basin	38.37166667	-87.74083333	45	743	16.51111111	--	None	--
6113	Gibson	85	SI	East Pond #3	38.3825	-87.73972222	133	3325	25	Combined Ash	None	--
6113	Gibson	81	SI	East Pond #1	38.37666667	-87.73722222	105	1733	16.5047619	Combined Ash	None	--
3776	Glen Lyn	146	SI	Auxiliary Fly Ash Pond	37.37855556	-80.87558333	44.3	185	4.176072235	Combined Ash	None	--
3776	Glen Lyn	870	LF	Glen Lyn Industrial Waste Landfill, Permit 222	37.37805556	-80.875	--	--	--	Combined Ash	Yes	--
3776	Glen Lyn	147	SI	Bottom Ash Pond	37.37261111	-80.86544444	1.44	90	62.5	Combined Ash	None	--
8	Gorgas	254	SI	Gypsum Storage Facility	33.655278	-87.217222	21	983	46.80952381	FGD Waste	Composite	--
8	Gorgas	255	SI	Ash Pond (NID #1198) Rattlesnake Dam	33.639722	-87.185556	420	10750	25.5952381	Combined Ash	None	--
8	Gorgas	963	LF	--	--	--	--	--	--	Combined Ash	--	--
1825	Grand Haven City of J.B. Sims	1309	SI	West Ash Pond	43.07180556	-86.23280556	0.29660239	2.076216713	7	Combined Ash	Clay	--
1825	Grand Haven City of J.B. Sims	1310	SI	East Ash Pond	43.07180556	-86.23280556	0.29660239	2.076216713	7	Combined Ash	Clay	--
10151	Grant Town Power Plant	873	LF	Farmington	39.50555556	-80.25111111	--	--	--	Combined Ash	None	--
10151	Grant Town Power Plant	872	LF	Barrackville	39.501641	-80.179709	--	--	--	Combined Ash	None	--
10151	Grant Town Power Plant	871	LF	Grant Town	39.5575	-80.16972222	--	--	--	Combined Ash	None	--
10151	Grant Town Power Plant	1168	SI	Pond 3	39.5584	-80.16638889	1.83654729	14.69237833	8	Combined Ash	None	--
10151	Grant Town Power Plant	1167	SI	Pond 10	39.55972222	-80.16611111	0.12626263	1.01010101	8	Combined Ash	None	--
10151	Grant Town Power Plant	1170	SI	Sedimentation Pond 5	39.56305556	-80.16583333	0.17217631	1.377410468	8	Combined Ash	None	--
10151	Grant Town Power Plant	1169	SI	Sedimentation Pond 9	39.56	-80.16555556	0.54407713	4.35261708	8	Combined Ash	None	--
10151	Grant Town Power Plant	1171	SI	Sedimentation Pond 6	39.5625	-80.16527778	0.03673095	0.293847567	8	Combined Ash	None	--
165	GRDA	1210	SI	SS1	36.18555556	-95.29194444	0.05034435	0.528673095	10.50113999	FGD Waste	None	--
165	GRDA	874	LF	ash landfill	36.18555556	-95.28833333	--	--	--	Combined Ash	Yes	--
1357	Green River	531	SI	Main Ash Pond	37.36974722	-87.12181667	32	775	24.21875	Combined Ash	None	--
1357	Green River	532	SI	Former Ash Pond	37.36556944	-87.11969444	6	--	--	Combined Ash	None	--
1357	Green River	533	SI	Ash Pond Number 2	37.36809444	-87.11804167	23	--	--	Combined Ash	None	--
1357	Green River	534	SI	Finishing Pond Number 3	37.04961944	-87.11576667	2	--	--	Combined Ash	None	--
1357	Green River	535	SI	Scrubber Pond	37.36812778	-87.11523056	10	150	15	FGD Waste	None	--
10	Greene County	256	SI	Ash Pond	--	--	474	5331	11.24683544	Combined Ash	None	--
6041	H L Spurlock Station	34	SI	Spurlock Ash Pond	38.70044883	-83.80169383	61.4	1085	17.67100977	Combined Ash	Clay	--
6041	H L Spurlock Station	972	LF	--	--	--	33.42	1907.73905	57.08375373	Combined Ash	Clay	--
2709	H.F. Lee Plant	658	SI	Ash Pond 1	35.38168333	-78.10723611	33	--	--	Combined Ash	None	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2709	H.F. Lee Plant	656	SI	Ash Pond 3	35.37596944	-78.10719722	85	--	--	Combined Ash	None	Excluded
2709	H.F. Lee Plant	657	SI	Ash Pond 2	35.38053056	-78.1038	53	--	--	Combined Ash	None	Excluded
2709	H.F. Lee Plant	659	SI	Active Ash Pond	35.3791	-78.069	143	1980	13.84615385	Combined Ash	None	--
2709	H.F. Lee Plant	660	SI	1980 Pond	--	--	--	--	--	Combined Ash	--	--
708	Hammond	1145	LF	Huffaker CCB	34.296139	-85.30457	--	--	--	Combined Ash	Yes	--
708	Hammond	351	SI	Ash Pond 2	--	--	21	509	24.23809524	Combined Ash	None	--
708	Hammond	352	SI	Ash Pond 1	--	--	35	800	22.85714286	Combined Ash	None	--
708	Hammond	353	SI	Ash Pond 4	--	--	54	1242	23	Combined Ash	None	--
708	Hammond	354	SI	Ash Pond 3	--	--	25	687	27.48	Combined Ash	None	Excluded
1731	Harbor Beach Power Plant	581	SI	Pond	--	--	--	--	--	Combined Ash	--	--
990	Harding Street	420	SI	Pond 2	39.706656	-86.202417	30	505	16.83333333	Combined Ash	None	--
990	Harding Street	423	SI	Pond 1	39.708192	-86.199089	7	92	13.14285714	Combined Ash	None	--
990	Harding Street	422	SI	Ponds 2A/2B	39.70665	-86.197319	4	43	10.75	Combined Ash	None	--
990	Harding Street	424	SI	Pond 3	39.707464	-86.196203	9.5	8	0.842105263	Combined Ash	None	--
990	Harding Street	421	SI	Pond 4	39.7042	-86.194464	26	304	11.69230769	Combined Ash	None	--
709	Harllee Branch	355	SI	Ash Pond E	33.204167	-83.326389	311	4665	15	Ash & Coal Refuse	None	--
709	Harllee Branch	358	SI	Ash Pond D	33.1869	-83.3055	45	675	15	Ash & Coal Refuse	None	--
709	Harllee Branch	359	SI	Ash Pond C	33.1869	-83.3055	70	1050	15	Ash & Coal Refuse	None	--
709	Harllee Branch	357	SI	Ash Pond B	33.1915	-83.3033	75	750	10	Ash & Coal Refuse	None	--
709	Harllee Branch	356	SI	A	--	--	1	14	14	Ash & Coal Refuse	--	Excluded
6193	Harrington	878	LF	001	35.305659	-101.754015	--	--	--	Combined Ash	Yes	--
6193	Harrington	877	LF	117	35.30305556	-101.7508333	--	--	--	Combined Ash	Yes	--
3944	Harrison Power Station	891	LF	CCB Landfill	39.40444444	-80.33222222	200	45862.80992	229.3140496	Combined Ash	Clay	--
3944	Harrison Power Station	158	SI	EPRI 6	--	--	300	17355.3719	57.85123967	Combined Ash	--	Excluded
3179	Hatfield's Ferry Power Station	880	LF	Ash Disposal Site	39.851828	-79.945337	32	1542.235537	48.19486054	Combined Ash	None	--
3179	Hatfield's Ferry Power Station	1217	SI	Limestone Runoff Basin	39.86000556	-79.93233611	1.464	--	--	FGD Waste	Yes	Excluded
3179	Hatfield's Ferry Power Station	1218	SI	Gypsum Runoff Basin	39.86061667	-79.9311	1.464	--	--	FGD Waste	Yes	Excluded
3179	Hatfield's Ferry Power Station	1216	SI	West Lagoon	39.86256111	-79.93094444	1.51515152	15.3454775	10.12801515	Combined Ash	None	--
3179	Hatfield's Ferry Power Station	1215	SI	East Lagoon	39.86278333	-79.93034722	1.51515152	15.3454775	10.12801515	Combined Ash	None	--
3179	Hatfield's Ferry Power Station	1219	SI	Gypsum Storage Area Basin	39.86116111	-79.93009444	1.464	--	--	FGD Waste	Yes	Excluded
891	Havana	392	SI	North Ash Pond System	40.27676389	-90.07905278	6	25	4.166666667	Combined Ash	--	--
891	Havana	393	SI	East Ash Pond	40.2801	-90.07119722	90	2625	29.16666667	Combined Ash	Composite	--
2079	Hawthorn	599	SI	Scrubber Waste Settling Pond	--	--	1	2	2	FGD Waste	--	--
2079	Hawthorn	962	LF	--	--	--	--	--	--	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
525	Hayden	1146	LF	Hayden Coal Ash Disposal Facility	40.47387222	-107.1611361	--	--	--	Combined Ash	None	--
525	Hayden	882	LF	Ash Disposal Facility	40.45109722	-107.1319972	--	--	--	Combined Ash	None	Excluded
525	Hayden	332	SI	Intermediate Quality Pond	--	--	20	274	13.7	Combined Ash	--	--
525	Hayden	333	SI	High Quality Skimmer Pond	--	--	1	6	6	Combined Ash	--	Excluded
525	Hayden	334	SI	High Quality Pond	--	--	4	40	10	Combined Ash	--	Excluded
525	Hayden	335	SI	Fly Ash Decant Basin	--	--	--	--	--	Combined Ash	--	--
525	Hayden	336	SI	Common Wet Ash Settling Basin	--	--	--	--	--	Combined Ash	--	--
525	Hayden	337	SI	Ash Disposal Facility (ADF) Contact Storm Water Pond	--	--	1	4	4	Combined Ash	--	--
3251	HB Robinson / Darlington Electric Power Plant	104	SI	Pond	34.41411111	-80.16222222	55	410	7.454545455	Combined Ash	None	--
892	Hennepin Power Station	394	SI	Ash Pond System (2 cells)	41.300222	-89.323988	21	563	26.80952381	Combined Ash	--	--
892	Hennepin Power Station	883	LF	-999	--	--	--	--	--	Combined Ash	Yes	--
1382	HMP&L Station Two Henderson	556	SI	Ash Pond No. 0855	37.647739	-87.505317	12.4	--	--	Combined Ash	None	--
1382	HMP&L Station Two Henderson	557	SI	Green Ash Pond	37.64612	-87.501376	21.3	--	--	Combined Ash	None	--
1382	HMP&L Station Two Henderson	984	LF	--	--	--	--	--	--	Combined Ash	--	--
108	HOLCOMB	1147	LF	HCF	37.945852	-100.965669	8	--	--	Combined Ash	None	--
3122	Homer City Station	725	SI	Coal Refuse Disposal Site - Leachate Pump Pond	40.518625	-79.212578	0.26	1	3.846153846	Combined Ash	--	Excluded
3122	Homer City Station	719	SI	Ash Disposal Site - Polishing Pond	40.518299	-79.212487	0.13	--	--	Combined Ash	--	--
3122	Homer City Station	92	SI	Coal Refuse Disposal Site - Small Sediment Trap	40.518566	-79.212215	0.18	1	5.555555556	Combined Ash	--	Excluded
3122	Homer City Station	884	LF	Ash Disposal Site	40.52638889	-79.21194444	145	3629.209711	25.02903249	Combined Ash	None	--
3122	Homer City Station	721	SI	Ash Disposal Site - Stormwater Surge Pond	40.526794	-79.20486	1.22	17	13.93442623	Combined Ash	--	Excluded
3122	Homer City Station	723	SI	Ash Disposal Site - Treatment Pond #2	40.516075	-79.199559	0.28	1	3.571428571	Combined Ash	--	--
3122	Homer City Station	90	SI	Coal Refuse Disposal Site - Stage I & II Pond	40.520906	-79.19929	1	13	13	Combined Ash	--	--
3122	Homer City Station	724	SI	Ash Disposal Site - Treatment Pond #1	40.515623	-79.199137	0.25	1	4	Combined Ash	--	--
3122	Homer City Station	726	SI	Ash Recycle Pond #2	40.514744	-79.198884	0.59	5	8.474576271	Combined Ash	--	--
3122	Homer City Station	722	SI	Ash Recycle Pond #1	40.514863	-79.198504	0.58	4	6.896551724	Combined Ash	--	--
3122	Homer City Station	91	SI	Ash Recycle Pond #4	40.513697	-79.198352	0.56	5	8.928571429	Combined Ash	--	--

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Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
3122	Homer City Station	727	SI	Ash Recycle Pond #3	40.51378	-79.197979	0.57	5	8.771929825	Combined Ash	--	--
3122	Homer City Station	720	SI	Coal Refuse Disposal Site - Storage Pond #2	40.509042	-79.197338	0.84	11	13.0952381	Combined Ash	--	--
3122	Homer City Station	886	LF	Emergency Strike Landfill	40.5175	-79.18888889	27	--	--	Combined Ash	None	Excluded
3122	Homer City Station	1134	LF	Coal Refuse Disposal Site	40.52777778	-79.18888889	165	16178.12213	98.04922503	Combined Ash	Composite	--
3122	Homer City Station	729	SI	Coal Refuse Disposal Site - Storage Pond #1	40.521757	-79.188655	1.26	2	1.587301587	Combined Ash	--	--
3122	Homer City Station	728	SI	Coal Refuse Disposal Site - Stage III & IV Pond	40.522143	-79.186773	1.54	26	16.88311688	Combined Ash	--	--
1943	Hoot Lake	1148	LF	Area 4	46.289375	-96.0384	--	--	--	Combined Ash	None	Excluded
1943	Hoot Lake	1158	LF	Area 1	46.28971389	-96.03636944	--	--	--	Combined Ash	None	Excluded
1943	Hoot Lake	1157	LF	Area 2	46.29038333	-96.0339	--	--	--	Combined Ash	None	Excluded
1943	Hoot Lake	1159	LF	IL002-Phase 1	46.28746667	-96.03198056	--	--	--	Combined Ash	Yes	--
1943	Hoot Lake	1160	LF	IL001-II	46.28780278	-96.03071667	--	--	--	Combined Ash	None	--
1943	Hoot Lake	887	LF	IL001-I	46.28873611	-96.030075	72	495.8677686	6.887052342	Combined Ash	None	--
1943	Hoot Lake	1156	LF	Area 3	46.29062	-96.013039	--	--	--	Combined Ash	None	Excluded
10771	Hopewell	1362	SI	Coal Pile Runoff Pond	37.298131	-77.284872	0.78739669	9.448760331	12	Ash & Coal Refuse	Composite	--
6772	Hugo	755	LF	Fly Ash Landfill	34.008487	-95.32962872	35.3	675.3991736	19.13312106	Combined Ash	Clay	--
6772	Hugo	230	SI	South Bottom Ash	34.00915278	-95.316675	34	344	10.11764706	Combined Ash	Clay	--
6772	Hugo	229	SI	North Bottom Ash Unit	34.01064722	-95.31594444	34	344	10.11764706	Combined Ash	Clay	--
6772	Hugo	231	SI	North Fly Ash	--	--	18	332	18.44444444	Combined Ash	Clay	--
6772	Hugo	232	SI	South Fly Ash Unit	--	--	18	332	18.44444444	Combined Ash	Clay	--
3176	Hunlock Power Station	103	SI	West Basin (005)	41.200563	-76.072583	5	90	18	Combined Ash	--	Excluded
3176	Hunlock Power Station	102	SI	East Basin (003)	41.199839	-76.072148	5	90	18	Combined Ash	--	Excluded
6165	Hunter Plant	756	LF	FGD Cell	39.00262778	-111.0102056	280	7438.016529	26.56434475	Combined Ash	None	--
6165	Hunter Plant	1258	SI	Landfill FGD Cell	39.15262778	-111.0102056	104.1	--	--	Combined Ash	Yes	Excluded
8069	Huntington Plant	757	LF	class III-b Industrial Waste Landfill	39.36940833	-111.0823778	70	7066.115703	100.94451	Combined Ash	None	--
8069	Huntington Plant	1364	SI	Scrubber Pond	39.37793333	-111.0813056	1.03305785	4	3.872	FGD Waste	Composite	--
8069	Huntington Plant	759	LF	Old Landfill	39.36836111	-111.0802111	--	--	--	Combined Ash	None	Excluded
8069	Huntington Plant	1363	SI	Lacey's lake	39.37630833	-111.0784278	1	4	4	Combined Ash	None	Excluded
8069	Huntington Plant	758	LF	Conditionally Exempt Combustion Waste Landfill	39.36466389	-111.0718639	--	--	--	Combined Ash	None	--
863	Hutsonville	383	SI	Ash Pond B	39.129551	-87.659345	4	70	17.5	Combined Ash	--	Excluded
863	Hutsonville	381	SI	Bottom Ash Pond	39.133223	-87.658424	1	6	6	Combined Ash	--	Excluded
863	Hutsonville	382	SI	Ash Pond C	39.131165	-87.658387	2	20	10	Combined Ash	--	Excluded
863	Hutsonville	384	SI	Ash Pond A	39.130078	-87.656369	14	250	17.85714286	Combined Ash	--	Excluded
6065	Iatan	1154	LF	Utility Waste Landfill	39.44972222	-94.96388889	--	--	--	Combined Ash	Yes	--
6065	Iatan	40	SI	Ash Pond	--	--	89	2328	26.15730337	Combined Ash	--	Excluded

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Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6641	Independence	1153	LF	ISES Landfill	35.679507	-91.391202	221	8069.008264	36.51134961	Combined Ash	Clay	--
2132	Independence Power & Light - Blue Valley Station	618	SI	Bottom Ash Pond	39.09584722	-94.32355278	9.3	133	14.30107527	Combined Ash	None	--
2132	Independence Power & Light - Blue Valley Station	617	SI	South Fly Ash Pond	39.09617222	-94.322075	15.1	271	17.94701987	Combined Ash	None	Excluded
2132	Independence Power & Light - Blue Valley Station	616	SI	North Fly Ash Pond	39.09873056	-94.32163611	16.8	252	15	Combined Ash	None	--
594	Indian River Generating Station	775	LF	Burton Island Landfill	38.585207	-75.241928	--	--	--	Combined Ash	None	Excluded
594	Indian River Generating Station	762	LF	Solid Waste Landfill	38.579359	-75.232033	--	--	--	Combined Ash	Yes	--
594	Indian River Generating Station	339	SI	Sedimentation Pond	--	--	--	--	--	Combined Ash	--	--
594	Indian River Generating Station	340	SI	Ash Silo Area Sump System	--	--	--	--	--	Combined Ash	--	Excluded
6481	Intermountain Power Project	214	SI	Settling Basin	--	--	14	145	10.35714286	FGD Waste	Composite	--
6481	Intermountain Power Project	215	SI	Ash Water Recycle	--	--	27	590	21.85185185	Combined Ash	Composite	--
6481	Intermountain Power Project	216	SI	Land Fill Run-Off	--	--	5	30	6	--	Composite	--
6481	Intermountain Power Project	217	SI	Evaporation Ponds (6 Ponds)	--	--	180	3225	17.91666667	FGD Waste	Composite	--
6481	Intermountain Power Project	218	SI	Bottom Ash Basin	--	--	105	3000	28.57142857	Combined Ash	Composite	--
6481	Intermountain Power Project	219	SI	Wastewater Holding Basin	--	--	53	650	12.26415094	FGD Waste	Composite	--
7097	J K Spruce	1369	SI	NOR 001a	29.32041667	-98.31666667	2.006	--	--	Combined Ash	Yes	Excluded
7097	J K Spruce	1368	SI	NOR 001	29.31905556	-98.31597222	2.006	--	--	Combined Ash	Yes	Excluded
7097	J K Spruce	1372	SI	SRH	29.323975	-98.31481944	1.60697888	9.400826446	5.85	FGD Waste	Composite	--
7097	J K Spruce	1373	SI	NOR (021)	29.33138889	-98.31477778	4.98852158	47.28191001	9.478140819	Combined Ash	Composite	--
7097	J K Spruce	1370	SI	NOR 002	29.32005556	-98.31452778	2.006	--	--	Combined Ash	Yes	Excluded
7097	J K Spruce	1371	SI	NOR 008	29.31813889	-98.31416667	2.006	--	--	Combined Ash	Yes	Excluded
7097	J K Spruce	753	LF	Landfill (NOR 010)	29.32397222	-98.31369444	--	--	--	Combined Ash	Yes	--
2850	J M Stuart	706	SI	Ash Pond No. 5	38.64138889	-83.70388889	34	1426	41.94117647	Combined Ash	None	Excluded
2850	J M Stuart	711	SI	Ash Pond No. 10	38.63944444	-83.685	29	930	32.06896552	Combined Ash	Clay	--
2850	J M Stuart	710	SI	Ash Pond No. 3A	38.63416667	-83.68361111	50	1302	26.04	Combined Ash	Clay	--
2850	J M Stuart	767	LF	Landfill 11	38.637	-83.67811111	--	--	--	Combined Ash	Yes	--
2850	J M Stuart	708	SI	Pond #7A	38.631111	-83.678056	3	38	12.66666667	--	--	Excluded
2850	J M Stuart	709	SI	Ash Pond No. 7	38.63111111	-83.67805556	37	1550	41.89189189	Combined Ash	Clay	Excluded
2850	J M Stuart	707	SI	Ash Pond No. 6	38.63277778	-83.67611111	37	1550	41.89189189	Combined Ash	Clay	Excluded
2850	J M Stuart	766	LF	Landfill 9	38.63433333	-83.66205556	--	--	--	Combined Ash	Yes	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6181	J T Deely	1295	SI	bottom ash	29.30684444	-98.32140278	6.68503214	54.19306703	8.106627747	Combined Ash	None	--
6181	J T Deely	1296	SI	bottom ash	29.30891667	-98.31782222	6.28099174	50.27892562	8.004934211	Combined Ash	None	--
6181	J T Deely	1292	SI	NOR 001a	29.32041667	-98.31666667	2.006	--	--	Combined Ash	Yes	Excluded
6181	J T Deely	1291	SI	NOR 001	29.31905556	-98.31597222	2.006	--	--	Combined Ash	Yes	Excluded
6181	J T Deely	768	LF	JTD / Evaporation Pond #021	29.323972	-98.3148	--	--	--	Combined Ash	Yes	--
6181	J T Deely	1293	SI	NOR 002	29.32005556	-98.31452778	2.006	--	--	Combined Ash	Yes	Excluded
6181	J T Deely	1294	SI	NOR 008	29.31813889	-98.31416667	2.006	--	--	Combined Ash	Yes	Excluded
6181	J T Deely	1002	LF	--	--	--	--	--	--	Combined Ash	--	--
1720	J.C. Weadock	573	SI	J.C. Weadock Fly Ash Dam	--	--	--	--	--	--	Clay	--
1720	J.C. Weadock	574	SI	East 7 & 8 Ponds	--	--	136	--	--	Combined Ash	--	--
1720	J.C. Weadock	575	SI	West A - E Ponds	--	--	156	--	--	Combined Ash	--	--
1720	J.C. Weadock	576	SI	Weadock Landfill Embankment	--	--	--	--	--	--	Clay	--
1720	J.C. Weadock	1003	LF	--	--	--	--	--	--	Combined Ash	--	--
1723	J.R Whiting	577	SI	Ponds 3-5	--	--	82	1489	18.15853659	Combined Ash	--	--
1723	J.R Whiting	578	SI	Pond 1	--	--	8	148	18.5	Combined Ash	None	--
1723	J.R Whiting	579	SI	Pond 2	--	--	7	135	19.28571429	Combined Ash	None	--
1723	J.R Whiting	580	SI	Pond 6	--	--	32	1054	32.9375	Combined Ash	None	--
1723	J.R Whiting	965	LF	--	--	--	11.87	--	--	Combined Ash	--	Excluded
1723	J.R Whiting	1000	LF	--	--	--	5.44	--	--	Combined Ash	--	Excluded
710	Jack McDonough	360	SI	Ash Pond 4	--	--	41	1996	48.68292683	Combined Ash	None	--
710	Jack McDonough	361	SI	Ash Pond 3	--	--	23	642	27.91304348	Combined Ash	None	--
710	Jack McDonough	362	SI	Ash Pond 1	--	--	25	546	21.84	Combined Ash	None	Excluded
710	Jack McDonough	363	SI	Ash Pond 2	--	--	6	118	19.66666667	Combined Ash	None	--
710	Jack McDonough	968	LF	--	--	--	--	--	--	Combined Ash	--	--
2049	Jack Watson	769	LF	Dry Ash Monofill	30.43333333	-89.02611111	--	--	--	Combined Ash	Yes	--
2049	Jack Watson	595	SI	Ash Pond	--	--	102	317	3.107843137	Combined Ash	None	--
1830	James De Young	1333	SI	Ash Settling Ponds	42.79388889	-86.11361111	1.49219467	6.014692378	4.030769231	Combined Ash	None	--
1830	James De Young	770	LF	Zeeland Township Landfill	42.78944444	-85.91888889	--	--	--	Combined Ash	None	--
6002	James H. Miller Jr.	16	SI	Ash Pond (NID #1101)	--	--	341	13606	39.90029326	Combined Ash	--	--
2161	James River Power Station	771	LF	Ash Landfill	37.10277778	-93.26805556	17	163.0165289	9.589207584	Combined Ash	Composite	--
2161	James River Power Station	619	SI	Pond	--	--	--	--	--	Combined Ash	--	--
2187	JE Corette Plant	764	LF	Fly Ash Landfill	45.78	-108.4825	--	--	--	Combined Ash	None	Excluded
2187	JE Corette Plant	1249	SI	Bottom Ash Pond #1	45.78194444	-108.4811111	2.48	--	--	Combined Ash	None	--
2187	JE Corette Plant	1250	SI	Bottom Ash Pond #2	45.78305556	-108.4808333	2.48	--	--	Combined Ash	None	--
3319	Jefferies	117	SI	Ash Pond B	33.31872222	-79.35136111	63	245	3.888888889	Combined Ash	None	--
3319	Jefferies	118	SI	Ash Pond A	33.325525	-79.34736111	88	982	11.15909091	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6068	Jeffrey Energy Center	41	SI	Bottom Ash Pond Dam	39.28223333	-96.14759167	72	550	7.638888889	Combined Ash	None	--
6068	Jeffrey Energy Center	42	SI	Bottom Ash Lake Dam	39.24375	-96.14678611	120	3000	25	Combined Ash	None	--
6068	Jeffrey Energy Center	772	LF	Fly Ash Landfill	39.28722222	-96.14333333	--	--	--	Combined Ash	None	--
6068	Jeffrey Energy Center	773	LF	Gypsum Landfill	39.27916667	-96.13916667	--	--	--	Combined Ash	None	--
6068	Jeffrey Energy Center	43	SI	Bottom Ash Settling Pond	39.2667	-96.13587778	53	988	18.64150943	Combined Ash	--	--
8066	Jim Bridger Plant Units 1-4	244	SI	FGD Pond #1	41.75380556	-108.8074444	93	1340	14.40860215	Combined Ash	Clay	Excluded
8066	Jim Bridger Plant Units 1-4	774	LF	Landfill	41.77012778	-108.7938111	180.5	9899.051963	54.84239315	Combined Ash	None	--
8066	Jim Bridger Plant Units 1-4	245	SI	FGD Pond #2	41.75688889	-108.7879167	392	11534	29.42346939	Combined Ash	None	--
3935	John E. Amos	742	LF	Quarrier Landfill	38.509045	-81.868582	200	8677.68595	43.38842975	Combined Ash	Yes	--
3935	John E. Amos	740	LF	John E Amos FGD Landfill	38.485988	-81.856277	--	--	--	Combined Ash	Yes	--
3935	John E. Amos	153	SI	Fly Ash Pond	--	--	175	2687	15.35428571	Combined Ash	None	--
3935	John E. Amos	154	SI	Bottom Ash Complex	--	--	30	220	7.333333333	Combined Ash	None	--
4271	John P. Madgett	990	LF	--	--	--	--	--	--	Combined Ash	--	--
4271	John P. Madgett	991	LF	--	--	--	--	--	--	Combined Ash	--	Excluded
3405	John Sevier	763	LF	Dry Fly Ash Stack	36.372825	-82.974115	90	1206.148804	13.40165338	Combined Ash	Composite	--
3405	John Sevier	131	SI	Dry Ash Stack	--	--	84	2355	28.03571429	Combined Ash	--	--
3405	John Sevier	132	SI	Bottom Ash Pond	--	--	41	744	18.14634146	Combined Ash	--	--
3406	Johnsonville	732	LF	DuPont Dredge Cell	36.03440278	-87.97888889	20.2	514.4628099	25.46845594	Combined Ash	None	--
3406	Johnsonville	733	LF	South Rail Loop	36.02591667	-87.9775	22	814	37	Combined Ash	Clay	Excluded
3406	Johnsonville	133	SI	Ash Disposal Area 2	--	--	87	2702	31.05747126	Combined Ash	--	--
3406	Johnsonville	291	SI	DuPont Road Dredge Cell	--	--	22	--	--	--	None	--
384	Joliet 29	309	SI	EPRI 1	--	--	63.1	627.2727273	9.940930702	Ash & Coal Refuse	--	Excluded
384	Joliet 29	1098	LF	--	--	--	--	--	--	Combined Ash	--	--
874	Joliet 9	1328	SI	Lower Quarry	41.49416667	-88.10694444	1.60491276	27.28351699	17	Combined Ash	None	--
874	Joliet 9	1327	SI	Upper Quarry	41.49472222	-88.10638889	42.2038567	2887.066116	68.40763708	Combined Ash	None	--
887	Joppa Steam	390	SI	Ash Pond	37.21527778	-88.85	103	3833	37.21359223	Ash & Coal Refuse	None	--
887	Joppa Steam	734	LF	-999	--	--	--	--	--	Combined Ash	Yes	--
3947	Kammer	159	SI	Boiler Slag Pond	--	--	2	22	11	Combined Ash	--	--
3936	Kanawha River	155	SI	Bottom Ash Complex	--	--	6	116	19.33333333	Combined Ash	--	--
1381	Kenneth C Coleman	553	SI	Active Ash Pond A	37.96666667	-86.79580556	23	1180	51.30434783	Combined Ash	None	--
1381	Kenneth C Coleman	555	SI	Inactive Ash Pond C	37.95661111	-86.79488889	19.5	--	--	Combined Ash	None	--
1381	Kenneth C Coleman	554	SI	New Ash Pond	--	--	64	2417	37.765625	Combined Ash	--	--
3136	Keystone	1307	SI	Bottom Ash Settling Pond (C)	40.864258	-79.499139	0.73415978	4.296740129	5.852595372	Combined Ash	Clay	--
3136	Keystone	1306	SI	Bottom Ash Settling Pond (B)	40.864847	-79.497442	0.73415978	4.296740129	5.852595372	Combined Ash	Clay	--
3136	Keystone	1305	SI	Bottom Ash Settling Pond (A)	40.864306	-79.495056	0.73415978	3.837603306	5.227204503	Combined Ash	Clay	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
3136	Keystone	1301	SI	Low Volume Waste Inlet Pond (A)	40.76202222	-79.46743056	7.508	--	--	Combined Ash	Yes	Excluded
3136	Keystone	1302	SI	Low Volume Waste Inlet Pond (B)	40.761903	-79.466419	7.508	--	--	Combined Ash	Yes	Excluded
3136	Keystone	1303	SI	Low Volume Waste Outlet Pond (A)	40.765825	-79.465603	7.508	--	--	Combined Ash	Yes	Excluded
3136	Keystone	1304	SI	Low Volume Waste Outlet Pond (B)	40.766278	-79.465044	7.508	--	--	FGD Waste	Yes	Excluded
3136	Keystone	736	LF	Original Ash Site	40.66025	-79.35361111	--	--	--	Combined Ash	None	Excluded
3136	Keystone	1297	SI	Bottom Ash Thermal Pond	40.66408056	-79.351125	7.11662075	128.5583104	18.06451613	Combined Ash	Composite	--
3136	Keystone	1300	SI	East Valley Ash Site Storm Water Pond (B)	40.66461944	-79.34950556	7.508	--	--	Combined Ash	Yes	--
3136	Keystone	1299	SI	East Valley Ash Site Storm Water Pond (A)	40.66524167	-79.34615278	7.508	--	--	Combined Ash	Yes	--
3136	Keystone	1298	SI	West Valley Ash Site Contact Stormwater / Leachate Pond	40.66516944	-79.34444167	7.508	--	--	Combined Ash	Yes	Excluded
3136	Keystone	1151	LF	West Valley Ash Site	40.67577778	-79.33927778	--	--	--	Combined Ash	Yes	--
3136	Keystone	1152	LF	East Valley Ash Site	40.67580556	-79.33494444	155	14047.38843	90.62831245	Combined Ash	Yes	--
6031	Killen Station	32	SI	Bottom Ash Pond	38.689341	-83.471246	39	1903	48.79487179	Combined Ash	--	--
6031	Killen Station	31	SI	Fly Ash Pond	38.683126	-83.467549	191	11004	57.61256545	Combined Ash	--	--
876	Kincaid Generation LLC	388	SI	Slag Field	39.59563889	-89.49238889	178	3560	20	Combined Ash	None	--
876	Kincaid Generation LLC	969	LF	--	--	--	--	--	--	Combined Ash	--	--
3407	Kingston	134	SI	Stilling Pond	--	--	29	290	10	Combined Ash	--	--
3407	Kingston	135	SI	Main Ash Pond	--	--	92	8907	96.81521739	Combined Ash	--	--
733	Kraft	1150	LF	Grumman Road Dry Ash Monofill	32.14027778	-81.18361111	--	--	--	Combined Ash	None	--
733	Kraft	375	SI	Ash Pond	--	--	8	41	5.125	Ash & Coal Refuse	--	--
2876	Kyger Creek	738	LF	Type III landfill	38.92361111	-82.16472222	--	--	--	Combined Ash	Yes	--
2876	Kyger Creek	716	SI	Bottom Ash Pond	38.91027778	-82.13277778	34	1435	42.20588235	Combined Ash	None	--
2876	Kyger Creek	717	SI	South Fly Ash Pond	38.91888889	-82.13055556	66	2500	37.87878788	Combined Ash	None	--
2713	L.V. Sutton Electric Plant	665	SI	1971 Pond	34.29591944	-77.9899	53	921	17.37735849	Combined Ash	None	--
2713	L.V. Sutton Electric Plant	666	SI	1984 Pond	34.29224722	-77.98971389	82	1364	16.63414634	Combined Ash	Clay	--
1241	La Cygne	739	LF	Utility Waste Landfill	38.35722222	-94.62777778	--	--	--	Combined Ash	Yes	--
1241	La Cygne	513	SI	Scrubber Sludge Ponds	--	--	483	9298	19.2505176	Combined Ash	Clay	--
1241	La Cygne	514	SI	Bottom Ash Settling Pond	--	--	2	12	6	Combined Ash	Clay	--
2103	Labadie	607	SI	Bottom Ash Pond	--	--	154	12000	77.92207792	Combined Ash	None	--
2103	Labadie	608	SI	Fly Ash Pond	--	--	79	1900	24.05063291	Combined Ash	Composite	--
2098	Lake Road	752	LF	Fly Ash Landfill	39.71777778	-94.88666667	9.7	80.34894399	8.283396287	Combined Ash	Clay	Excluded
2098	Lake Road	605	SI	Slag/Coal Pile Run-off Pond	39.72277778	-94.87861111	1.8	7	3.888888889	Combined Ash	None	Excluded
2098	Lake Road	606	SI	Settling Pond	--	--	1	5	5	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2838	Lake Shore	1270	SI	Combined Treatment Basin	41.53333333	-81.64166667	0.50505051	2.525252525	5	Combined Ash	None	--
964	Lakeside	400	SI	Lakeside Ash Pond	39.76305556	-89.59722222	37	680	18.37837838	Combined Ash	None	Excluded
1047	Lansing	730	LF	Closed Ash Disposal Facility	43.329578	-91.16616	--	--	--	Combined Ash	None	Excluded
1047	Lansing	741	LF	Active Ash Disposal Facility	43.328369	-91.163119	--	--	--	Combined Ash	None	--
1047	Lansing	477	SI	Lower Ash Pond	--	--	--	2	--	Combined Ash	None	--
1047	Lansing	478	SI	Main Ash Pond	--	--	15	294	19.6	Combined Ash	None	--
643	Lansing Smith	743	LF	Ash Landfill	30.26802778	-85.68436111	--	--	--	Combined Ash	Yes	--
643	Lansing Smith	341	SI	Ash Pond	--	--	172	2611	15.18023256	Combined Ash	None	--
6204	Laramie River Station	744	LF	Landfill	42.11333333	-104.9022222	--	--	--	Combined Ash	None	--
6204	Laramie River Station	188	SI	Bottom Ash Ponds 1 & 2 (BAP1 & BAP2)	42.108251	-104.89733	105	2111	20.1047619	Combined Ash	Composite	--
6204	Laramie River Station	189	SI	Emergency Holding Pond	42.117535	-104.882691	54.1	916	16.93160813	FGD Waste	Composite	--
1891	Laskin Energy Center	588	SI	Cells A, B, C & D (retired)	--	--	73	730	10	Combined Ash	None	Excluded
1891	Laskin Energy Center	589	SI	Cell E	--	--	23	174	7.565217391	Combined Ash	Composite	--
1250	Lawrence Energy Center	745	LF	Landfill 600	39.005	-95.27333333	825	21260.3306	25.7700977	Combined Ash	None	--
1250	Lawrence Energy Center	747	LF	Landfill 0333	39.00611111	-95.26277778	30	619.834711	20.66115703	Combined Ash	None	Excluded
1250	Lawrence Energy Center	1149	LF	Landfill 0847	39.004994	-95.259549	22	842.975207	38.31705486	Combined Ash	Yes	--
1250	Lawrence Energy Center	515	SI	Area 4	--	--	14	185	13.21428571	Combined Ash	None	--
1250	Lawrence Energy Center	516	SI	Area 1	--	--	5	71	14.2	Combined Ash	None	--
1250	Lawrence Energy Center	517	SI	Area 3	--	--	18	273	15.16666667	Combined Ash	Clay	--
1250	Lawrence Energy Center	518	SI	Area 2	--	--	10	155	15.5	Combined Ash	None	--
2817	Leland Olds	749	LF	SP-143	47.24605833	-101.3635333	20	283.884298	14.1942149	Combined Ash	Yes	--
2817	Leland Olds	683	SI	Ash Pond #1	47.28069444	-101.3181944	27	744	27.55555556	Combined Ash	None	--
2817	Leland Olds	684	SI	Ash Pond #2	47.28069444	-101.3181944	38	924	24.31578947	Combined Ash	None	--
2817	Leland Olds	685	SI	Ash Pond #3	47.28069444	-101.3181944	3	12	4	Combined Ash	None	--
2817	Leland Olds	748	LF	SP-038	47.27644722	-101.3107889	37	1115.70248	30.15412108	Combined Ash	None	--
6089	Lewis & Clark	750	LF	Savage Mine	47.47905556	-104.4383611	--	--	--	Combined Ash	None	--
6089	Lewis & Clark	1374	SI	West Scrubber Pond Cell 1	47.68016667	-104.1579167	1.33149679	11.47842057	8.620689655	Combined Ash	Clay	--
6089	Lewis & Clark	1375	SI	West Scrubber Pond Cell 2	47.67975	-104.1572222	0.42699725	2.089072544	4.892473118	Combined Ash	Clay	--
6089	Lewis & Clark	1377	SI	East Scrubber Pond Cell 2	47.67975	-104.1572222	0.42699725	2.089072544	4.892473118	Combined Ash	Clay	--
6089	Lewis & Clark	1376	SI	East Scrubber Pond Cell 1	47.67936111	-104.1563889	1.33149679	11.47842057	8.620689655	Combined Ash	Clay	--
6089	Lewis & Clark	751	LF	Scrubber Sludge	47.68258333	-104.1521111	--	--	--	Combined Ash	None	Excluded
6089	Lewis & Clark	1378	SI	Ash Pond 1	47.68144444	-104.1517222	15.1905418	182.2773186	11.9993955	Combined Ash	Composite	--
6089	Lewis & Clark	786	LF	-999	--	--	--	--	--	Combined Ash	None	Excluded
298	Limestone	300	SI	ST 18	31.41888889	-96.25638611	--	--	--	--	Clay	Excluded
298	Limestone	308	SI	DSDA Unit No. 003	31.41888889	-96.25638611	20.84	--	--	Combined Ash	Clay	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
298	Limestone	821	LF	Class II Landfill	31.43277778	-96.24138889	--	--	--	Combined Ash	Yes	--
298	Limestone	301	SI	FGD Emergency Pond E	--	--	1	31	31	FGD Waste	--	--
298	Limestone	302	SI	ST-10 Pump	--	--	--	1	--	Combined Ash	--	Excluded
298	Limestone	303	SI	ST-9 Pump	--	--	--	--	--	Combined Ash	--	Excluded
298	Limestone	304	SI	Bottom Ash Cooling Pond	--	--	3	50	16.66666667	Combined Ash	--	--
298	Limestone	305	SI	Dewatered Sludge Disposal Area	--	--	3	25	8.333333333	FGD Waste	--	Excluded
298	Limestone	306	SI	Stormwater Pond A	--	--	1	14	14	--	--	Excluded
298	Limestone	307	SI	Stormwater Pond B	--	--	1	14	14	--	--	Excluded
2240	Lon Wright	765	LF	Ash Monofill	--	--	--	105.3719008	--	Combined Ash	Yes	--
6664	Louisa	801	LF	CCR Landfill	41.33361111	-91.09555556	26	79.2271809	3.047199265	Combined Ash	None	--
6664	Louisa	223	SI	Bottom Ash Pond	41.48055556	-90.81611111	42	--	--	Ash & Coal Refuse	Clay	--
6664	Louisa	222	SI	Louisa Surface Impoundment	--	--	42	242	5.761904762	Combined Ash	Clay	--
976	Marion Generating Station	402	SI	Pond A-1	37.622483	-88.959618	32	--	--	Combined Ash	--	--
976	Marion Generating Station	401	SI	Fly Ash Disposal Pond	37.623085	-88.958022	45	--	--	Combined Ash	--	--
976	Marion Generating Station	411	SI	South Fly Ash Pond	37.614852	-88.957672	103	--	--	Combined Ash	--	--
976	Marion Generating Station	410	SI	Pond 4	37.622813	-88.955435	55	--	--	Combined Ash	--	--
976	Marion Generating Station	412	SI	Pond 2	37.623314	-88.953918	15	--	--	Combined Ash	--	--
976	Marion Generating Station	405	SI	Pond 1	37.62245	-88.953884	9	--	--	Combined Ash	--	--
976	Marion Generating Station	802	LF	1990555005	37.62472222	-88.95288889	143	1983.47107	13.87042706	Combined Ash	None	--
976	Marion Generating Station	409	SI	Pond S-3	37.62583	-88.952365	20	--	--	Combined Ash	--	--
976	Marion Generating Station	406	SI	Pond S-1	37.623553	-88.95221	71	--	--	Combined Ash	--	--
976	Marion Generating Station	408	SI	Pond S-2	37.625837	-88.951926	25	--	--	Combined Ash	--	--
976	Marion Generating Station	404	SI	Pond S-6	37.62782	-88.951541	16	--	--	Combined Ash	--	--
976	Marion Generating Station	403	SI	Pond 3	37.624879	-88.95028	20	--	--	Combined Ash	--	--
976	Marion Generating Station	407	SI	Pond 3A	37.624139	-88.949876	20	--	--	Combined Ash	--	--
2727	Marshall	803	LF	FGD Residue Landfill	35.60361111	-80.97833333	18	145.3512397	8.075068871	Combined Ash	Composite	--
2727	Marshall	804	LF	Ash Landfill	35.61611111	-80.96861111	58	3595.041322	61.98347107	Combined Ash	None	Excluded
2727	Marshall	680	SI	Active Ash Pond	35.605944	-80.959917	1188	6885	5.795454545	Combined Ash	None	--
492	Martin Drake	1254	SI	Drake Equalization Basin	38.82385	-104.8330528	0.03859045	0.491046832	12.72456871	Combined Ash	None	--
492	Martin Drake	1253	SI	Drake W. Bottom Ash Basin	38.82361111	-104.833025	0.0530303	0.265151515	5	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
492	Martin Drake	1252	SI	Drake E. Bottom Ash Basin	38.82361944	-104.8328833	0.05050505	0.265151515	5.25	Combined Ash	None	--
492	Martin Drake	1251	SI	Drake Cooling Tower 4	38.82458333	-104.8326583	0.07889118	0.394444444	4.999854503	Combined Ash	None	--
492	Martin Drake	805	LF	-999	--	--	--	--	--	Combined Ash	None	--
6146	Martin Lake	822	LF	PDP #2	32.26124167	-94.58276111	--	--	--	Combined Ash	Yes	Excluded
6146	Martin Lake	810	LF	PDP #3	32.25926944	-94.58261944	--	--	--	Combined Ash	Yes	Excluded
6146	Martin Lake	808	LF	PDP #1	32.26230556	-94.5823	--	--	--	Combined Ash	Yes	Excluded
6146	Martin Lake	1226	SI	Permanent Disposal Pond #4	32.25824444	-94.57884444	15.339876	347.107438	22.62778638	Combined Ash	Composite	--
6146	Martin Lake	1225	SI	East Bottom Ash Pond	32.26187778	-94.56365278	14.5798898	306.177686	21	Combined Ash	None	--
6146	Martin Lake	1224	SI	West Bottom Ash Pond	32.26071667	-94.56348889	14.5798898	306.177686	21	Combined Ash	Composite	--
6146	Martin Lake	1223	SI	ESP	32.26076944	-94.56153889	12.0999082	211.0130854	17.43923031	FGD Waste	Composite	--
6146	Martin Lake	807	LF	Caney Branch	32.243539	-94.540761	--	--	--	Combined Ash	Yes	Excluded
6146	Martin Lake	806	LF	A-1 ash disposal	32.22916944	-94.52399167	290	18595.04132	64.12083214	Combined Ash	Yes	--
6250	Mayo Electric Generating Facility	204	SI	1982 Pond	36.5378	-78.8931	140	4100	29.28571429	Combined Ash	None	--
6124	McIntosh	87	SI	Ash Pond	--	--	27	342	12.66666667	Ash & Coal Refuse	--	--
3287	McMeekin	1155	LF	Ash Landfill	34.04633333	-81.21327778	--	--	--	Combined Ash	None	--
2104	Meramec	609	SI	Bottom Ash Pond (3)	--	--	14	280	20	Combined Ash	None	--
2104	Meramec	610	SI	Fly Ash Pond #494 (Pond 7), Fly Ash Pond #495 (Pond 8), Fly Ash Pond #490 (Pond 9), and Fly Ash Pond #491 (Pond 10)	--	--	--	--	--	Combined Ash	None	Excluded
2104	Meramec	611	SI	Old Fly Ash Pond	--	--	18	300	16.66666667	Combined Ash	Composite	--
2104	Meramec	612	SI	New Fly Ash Pond	--	--	14	230	16.42857143	Combined Ash	Composite	--
2104	Meramec	613	SI	Retention Pond	--	--	1	10	10	Combined Ash	None	Excluded
864	Meredosia	385	SI	Fly Ash Pond	--	--	186	700	3.76344086	Combined Ash	None	Excluded
864	Meredosia	386	SI	Bottom Ash Pond	--	--	34	186	5.470588235	Combined Ash	None	Excluded
6213	Merom	812	LF	Area 2	39.06638889	-87.50027778	65	5268.595041	81.05530833	Combined Ash	Yes	--
6213	Merom	813	LF	Area 1	39.07472222	-87.50027778	--	--	--	Combined Ash	None	Excluded
6213	Merom	190	SI	All	--	--	--	--	--	Combined Ash	--	Excluded
2364	Merrimack Station	754	LF	Coal Ash Landfill	43.13497222	-71.4765	--	--	--	Combined Ash	Yes	--
2364	Merrimack Station	1319	SI	WWT #3 Slag Sluice Settling Area	43.14125	-71.47186111	0.64538567	0.529476584	0.820403372	Combined Ash	None	--
2364	Merrimack Station	1320	SI	Waste Treatment #4 Slag Settling Pond	43.13983333	-71.47016667	1.73576676	10.0674472	5.8	Combined Ash	None	--
2832	Miami Fort	700	SI	Ash Basin B	39.11194444	-84.81277778	20	515	25.75	Ash & Coal Refuse	None	--
2832	Miami Fort	699	SI	Ash Basin A	39.1125	-84.81	20	803	40.15	Ash & Coal Refuse	None	--
2832	Miami Fort	1121	LF	Miamiview Road Ash Landfill	39.15388889	-84.78888889	--	--	--	Combined Ash	Yes	Excluded
2832	Miami Fort	1109	LF	Lawrenceberg Road Ash Landfill	--	--	80	2479.338843	30.99173554	Combined Ash	Yes	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
997	Michigan City	451	SI	Primary 2	41.716443	-86.915613	2.6	44	16.92307692	Combined Ash	--	--
997	Michigan City	450	SI	Secondary 2	41.71739	-86.914924	0.2	3	15	Combined Ash	--	--
997	Michigan City	453	SI	Primary 1	41.71814	-86.914534	2.2	36	16.36363636	Combined Ash	--	--
997	Michigan City	452	SI	Secondary 1	41.718947	-86.913976	0.2	3	15	Combined Ash	--	--
997	Michigan City	448	SI	Final Settling Pond	41.720692	-86.913242	5.7	85	14.9122807	Combined Ash	--	--
997	Michigan City	449	SI	Bottom Ash Area	41.719552	-86.912839	0.7	1	1.428571429	Combined Ash	--	--
1364	Mill Creek	543	SI	Ash Pond	33.204167	-85.909242	43	--	--	Combined Ash	None	--
1364	Mill Creek	817	LF	Mill Creek Special Waste Landfill-Site A	38.04222222	-85.90888889	--	--	--	Combined Ash	None	--
1364	Mill Creek	819	LF	Mill Creek Special Waste Landfill-Site B	38.05083333	-85.90555556	--	--	--	Combined Ash	None	--
1364	Mill Creek	818	LF	Mill Creek Special Waste Landfill-Site C	38.04444444	-85.90472222	--	--	--	Combined Ash	Yes	--
1364	Mill Creek	544	SI	Emergency Pond	--	--	1	--	--	FGD Waste	--	--
1364	Mill Creek	545	SI	Dead Storage Pond	--	--	2	--	--	FGD Waste	--	--
1364	Mill Creek	546	SI	Construction Run Off Pond	--	--	3	--	--	FGD Waste	--	--
1364	Mill Creek	547	SI	Clearwell Pond	--	--	2	--	--	FGD Waste	--	--
2823	Milton R. Young Station	777	LF	IT-197	47.07111111	-101.3134528	--	--	--	Combined Ash	None	Excluded
2823	Milton R. Young Station	788	LF	IT-205 Section 3	47.06308333	-101.3125278	--	--	--	Combined Ash	None	--
2823	Milton R. Young Station	809	LF	IT-068	47.07941389	-101.2864889	--	--	--	Combined Ash	None	Excluded
2823	Milton R. Young Station	811	LF	Horseshoe Pit	47.07838889	-101.2733833	--	--	--	Combined Ash	None	Excluded
2823	Milton R. Young Station	820	LF	Cell 1 30 Year Ponds	47.05989	-101.22055	80	4028.92562	50.36157025	Combined Ash	Yes	--
2823	Milton R. Young Station	686	SI	Cell 1	--	--	--	--	--	Combined Ash	Clay	--
2823	Milton R. Young Station	687	SI	Unit 1 Alternative Bottom Ash Pond	--	--	2	25	12.5	Combined Ash	Clay	--
2823	Milton R. Young Station	688	SI	30 Year Ponds (Cell 2)	--	--	27	1252	46.37037037	Combined Ash	Clay	--
2823	Milton R. Young Station	689	SI	Horseshoe Pit Evaporation Pond	--	--	4	34	8.5	Combined Ash	--	--
2171	Missouri City	1257	SI	Ash Pond	39.23212222	-94.30763611	0.331	--	--	Combined Ash	None	--
3948	Mitchell	160	SI	Bottom Ash Complex	39.825	-80.815556	10.2	262	25.68627451	Combined Ash	Composite	--
3948	Mitchell	161	SI	Fly Ash Pond	39.823611	-80.815	71	13500	190.1408451	Ash & Coal Refuse	--	--
727	Mitchell	364	SI	Ash Pond A	--	--	4	61	15.25	Combined Ash	None	--
727	Mitchell	365	SI	Ash Pond 2	--	--	43	644	14.97674419	Combined Ash	None	--
727	Mitchell	366	SI	Ash Pond 1	--	--	44	659	14.97727273	Combined Ash	None	--
3181	Mitchell Power Station	779	LF	Inactive coal combustion byproduct disposal site	40.226871	-79.978892	--	--	--	Combined Ash	None	Excluded
3181	Mitchell Power Station	778	LF	Active Coal Combustion byproduct disposal site	40.22611111	-79.97888889	70	3471.07438	49.58677686	Combined Ash	None	--
1048	ML Kapp	479	SI	Main Ash Secondary Settling Pond	--	--	2	1	0.5	Combined Ash	None	--
1048	ML Kapp	480	SI	Emergency Ash Primary Settling Pond	--	--	1	3	3	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
1048	ML Kapp	481	SI	Emergency Ash Secondary Settling Pond	--	--	1	2	2	Combined Ash	None	--
1048	ML Kapp	482	SI	Main Ash Primary Settling Pond	--	--	7	4	0.571428571	Combined Ash	None	--
1733	Monroe Power Plant	582	SI	Fly Ash Basin	41.88416667	-83.37527778	410.576	18595	45.29003157	Combined Ash	none	--
1733	Monroe Power Plant	583	SI	Bottom Ash Basin	--	--	100	620	6.2	Combined Ash	--	--
6147	Monticello	781	LF	G Area	33.14444444	-95.03805556	--	--	--	Combined Ash	Yes	--
6147	Monticello	1204	SI	West Decant Basin(s)	33.08489722	-95.03458056	0.88699311	15.96434803	17.99827732	Combined Ash	Composite	Excluded
6147	Monticello	1203	SI	East Decant Basin(s)	33.08515	-95.03393056	0.88705234	15.96434803	17.99707557	Combined Ash	None	Excluded
6147	Monticello	1205	SI	Bottom Ash Pond(s)	33.08775556	-95.03381111	20.2298439	293.6139118	14.51389904	Combined Ash	None	--
6147	Monticello	1206	SI	New Operating Scrubber Pond 2	33.08592778	-95.03345556	1	12.00325987	12.00325987	FGD Waste	Composite	Excluded
6147	Monticello	782	LF	A Area	33.09211111	-95.02919444	--	--	--	Combined Ash	None	Excluded
6147	Monticello	780	LF	B Area	--	--	--	--	--	Combined Ash	None	--
2080	Montrose	783	LF	Utility Waste Landfill	38.31138889	-93.94388889	--	--	--	Combined Ash	Yes	--
2080	Montrose	601	SI	South Ash Pond	38.31053889	-93.93953611	2.7	--	--	Combined Ash	--	--
2080	Montrose	600	SI	North Ash Pond	38.31093889	-93.93916667	1.65	--	--	Combined Ash	--	--
2080	Montrose	602	SI	Ash Settling Pond	--	--	4	13	3.25	Combined Ash	--	--
1573	Morgantown Generating Plant	1108	LF	Controlled Storage	38.36138889	-76.96944444	212	4772.727273	22.51286449	Combined Ash	Yes	--
1573	Morgantown Generating Plant	785	LF	Faulkner Ash Site	38.439064	-76.961462	--	--	--	Combined Ash	Yes	--
1606	Mount Tom	563	SI	Equalization Tank	42.278607	-72.60317	0.014	--	--	Combined Ash	--	Excluded
1606	Mount Tom	798	LF	Former Bottom Ash Basin "A"	42.276003	-72.602229	--	--	--	Combined Ash	None	Excluded
1606	Mount Tom	564	SI	Special Basin	--	--	1	7	7	Combined Ash	--	Excluded
1606	Mount Tom	565	SI	Bottom Ash Basin	--	--	2	18	9	Combined Ash	--	Excluded
6264	Mountaineer	787	LF	Little Broad Run Landfill	38.94666667	-81.95166667	325	10289.2562	31.65924984	Combined Ash	Composite	--
6264	Mountaineer	211	SI	Bottom Ash Complex	38.97	-81.936667	29	508	17.51724138	Combined Ash	Clay	--
3954	Mt. Storm	1112	LF	Closed Ash Mtn	39.19111111	-79.29027778	54	--	--	Combined Ash	Clay	Excluded
3954	Mt. Storm	1110	LF	Phase B Landfill	39.18555556	-79.28388889	155	656.5656566	4.235907462	Combined Ash	None	--
3954	Mt. Storm	1111	LF	Phase A Landfill (ASH)	39.196095	-79.282034	71	505.0505051	7.113387395	Combined Ash	Clay	--
3954	Mt. Storm	789	LF	Phase A Landfill (FGD)	39.196262	-79.276722	71	491.2764004	6.919385921	Combined Ash	Composite	--
1167	Muscatine #1	792	LF	Coal Combustion Residue Landfill	41.38	-91.20722222	36	1239.669422	34.43526171	Combined Ash	Yes	--
1167	Muscatine #1	1361	SI	coal pile runoff pond	41.38861111	-91.05805556	0.45913682	4.591368228	10	Ash & Coal Refuse	Clay	Excluded
2872	Muskingum River	712	SI	Unit 1-4 Bottom Ash Pond Dam	39.58362778	-81.68921111	5	100	20	Combined Ash	None	--
2872	Muskingum River	714	SI	Middle Fly Ash Pond	39.58166667	-81.68833333	40	1370	34.25	Combined Ash	None	--
2872	Muskingum River	715	SI	Lower Fly Ash Dam	39.58583333	-81.68833333	16	660	41.25	Combined Ash	None	--
2872	Muskingum River	713	SI	Upper Fly Ash Pond	39.575	-81.685	116.8	5250	44.94863014	Combined Ash	None	--
2952	Muskogee	1174	SI	T01	35.76555556	-95.29222222	23.14	--	--	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2952	Muskogee	1173	SI	F03	35.75361111	-95.29027778	0.44977043	--	--	Combined Ash	None	--
2952	Muskogee	1172	SI	F01	35.76388889	-95.28111111	17.5298439	--	--	Combined Ash	Clay	--
4162	Naughton Plant	15	SI	FGD Pond #1	41.767492	-110.595608	40	1038	25.95	Combined Ash	Composite	--
4162	Naughton Plant	14	SI	South Ash Pond	41.748486	-110.594661	206	4057	19.69417476	Combined Ash	None	--
4162	Naughton Plant	13	SI	North Ash Pond	41.761525	-110.588586	151.5	3370	22.24422442	Combined Ash	None	--
4162	Naughton Plant	12	SI	FGD Pond #2	41.766639	-110.586917	40	671	16.775	Combined Ash	Composite	--
4162	Naughton Plant	980	LF	--	--	--	--	--	--	Combined Ash	--	--
4941	Navajo Generating Station	793	LF	Ash Disposal Area	36.90861111	-111.3569444	--	--	--	Combined Ash	None	--
6064	Nearman Creek	795	LF	Fly Ash Dry Deposition Area	39.10694444	-94.71773889	--	--	--	Combined Ash	None	--
6064	Nearman Creek	794	LF	Bottom Ash Pond	39.174112	-94.692221	--	--	--	Combined Ash	Yes	--
6064	Nearman Creek	39	SI	N/A	--	--	7	124	17.71428571	Combined Ash	Clay	--
6096	Nebraska City	797	LF	NC2 Landfill Cell 1	40.62561111	-95.78605556	--	--	--	Combined Ash	Yes	--
6096	Nebraska City	943	LF	NC1 landfill	40.61922222	-95.78602778	17	371.9008265	21.8765192	Combined Ash	None	--
6096	Nebraska City	1271	SI	Bottom Ash Pond 1	40.625103	-95.774172	11.359045	96.7637741	8.518654002	Combined Ash	None	--
6096	Nebraska City	1272	SI	Bottom Ash Pond 2	40.625103	-95.774172	12.2520661	111.1042241	9.06820311	Combined Ash	None	--
4054	Nelson Dewey	170	SI	WPDES Pond	42.725581	-91.013559	4	26	6.5	Combined Ash	--	Excluded
4054	Nelson Dewey	893	LF	Ash Disposal Facility	42.72680556	-91.01277778	17.8	381.818182	21.45045966	Combined Ash	None	Excluded
4054	Nelson Dewey	171	SI	Slag Pond	42.725413	-91.008642	5	20	4	Combined Ash	--	--
3138	New Castle Plant	1350	SI	South Bottom Ash Pond	40.94	-80.37138889	0.72084481	5.766758494	8	Combined Ash	None	--
3138	New Castle Plant	1349	SI	North Bottom Ash Pond	40.941817	-80.368153	2.0087236	16.0697888	8	Combined Ash	None	--
3138	New Castle Plant	941	LF	Fly Ash Landfill	40.94555556	-80.36805556	57	3548.347107	62.25170364	Combined Ash	Composite	--
2167	New Madrid	1032	LF	UCW landfill	36.48964306	-89.58599806	--	--	--	Combined Ash	Yes	--
2167	New Madrid	622	SI	Ash Pond 1	36.50611111	-89.57388889	31	570	18.38709677	Combined Ash	None	--
2167	New Madrid	621	SI	Slag Pond 2	36.51444444	-89.55944444	4	14	3.5	Combined Ash	None	--
2167	New Madrid	620	SI	Ash Pond 2	36.50166667	-89.5575	79	1351	17.10126582	Combined Ash	Composite	--
2167	New Madrid	623	SI	Slag Pond 1	36.5075	-89.55666667	62	1137	18.33870968	Combined Ash	None	--
6017	Newton	1034	LF	Landfill Phase I	38.93305556	-88.295	--	--	--	Combined Ash	None	Excluded
6017	Newton	1033	LF	Landfill Phase II	38.93083333	-88.29194444	309	--	--	Combined Ash	Yes	--
6017	Newton	21	SI	Secondary Ash Pond	38.92195556	-88.29063889	9	83	9.222222222	Combined Ash	None	--
6017	Newton	22	SI	Primary Ash Pond	38.92836667	-88.28351389	400	9250	23.125	Combined Ash	None	--
2291	North Omaha	1113	LF	North Omaha Ash Landfill	41.33294444	-95.95097778	13	65.08264463	5.006357279	Combined Ash	None	--
2291	North Omaha	1036	LF	North Omaha Ash Landfill closed area	41.32966667	-95.9505	--	--	--	Combined Ash	Yes	Excluded
2291	North Omaha	1222	SI	Coal Pile Runoff pond	41.33008333	-95.94894444	2.298	--	--	Ash & Coal Refuse	None	Excluded
2291	North Omaha	1220	SI	West Ash Pond (IAW-3A)	41.33063889	-95.94569444	15.9894399	14.66023875	0.916870065	Combined Ash	Composite	--
2291	North Omaha	1221	SI	East Ash Pond (IAW-3B)	41.33063889	-95.94569444	11.5909091	10.6359045	0.917607447	Combined Ash	Composite	--
8224	North Valmy	1037	LF	U1, U2 & U3 Ash Landfill	40.89145278	-117.1504278	--	--	--	Combined Ash	None	--
2963	Northeastern	1038	LF	Fly Ash Landfill	36.41583333	-95.69833333	69	1974.291322	28.61291771	Combined Ash	Yes	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2963	Northeastern	718	SI	Bottom Ash Pond	--	--	69	700	10.14492754	Combined Ash	Clay	--
667	Northside Generating Station	1039	LF	Outdoor pile 1	30.42694444	-81.55666667	--	--	--	Combined Ash	Yes	--
10030	NRG Energy Center Dover	251	SI	Waste Water Pond	--	--	--	--	--	Combined Ash	--	--
527	Nucla	338	SI	Coal/Ash Settling Basin	--	--	--	--	--	Combined Ash	--	--
527	Nucla	964	LF	--	--	--	41.2	929.7520665	22.56679773	Combined Ash	--	--
2848	O H Hutchings	705	SI	West Primary Settling Pond	39.61163056	-84.29494167	7.88	--	--	Combined Ash	None	--
2848	O H Hutchings	703	SI	Secondary Settling Pond	39.613175	-84.29474722	1.75	6	3.428571429	Combined Ash	None	--
2848	O H Hutchings	704	SI	East Primary Settling Pond	39.61177778	-84.29355556	5.4	--	--	Combined Ash	None	--
6180	Oak Grove	1040	LF	Ash Landfill 1	31.17544167	-96.49919167	--	--	--	Combined Ash	Yes	--
6180	Oak Grove	1185	SI	FGD-A	31.18421944	-96.49215278	9.43526171	144.2470156	15.28807786	Combined Ash	Clay	--
6180	Oak Grove	1042	LF	-999	--	--	--	--	--	Combined Ash	None	--
6180	Oak Grove	1054	LF	-999	--	--	--	--	--	Combined Ash	None	--
127	Oklaunion	281	SI	Wastewater Evaporation Pond 6	34.07999722	-99.17916667	58	1044	18	Combined Ash	Clay	--
127	Oklaunion	282	SI	Sludge Pond	--	--	23	565	24.56521739	FGD Waste	--	--
127	Oklaunion	283	SI	Pond #23	--	--	13	333	25.61538462	Combined Ash	--	--
127	Oklaunion	841	LF	--	--	--	--	--	--	Combined Ash	Composite	--
4151	Osage	1044	LF	Historic Ash Dam	43.971173	-104.40813	--	--	--	Combined Ash	None	Excluded
4151	Osage	1031	LF	Old Ash Dam	43.96988889	-104.4077778	--	--	--	Combined Ash	None	Excluded
4151	Osage	1267	SI	West Dam	43.96516667	-104.4068056	45	--	--	Combined Ash	None	Excluded
4151	Osage	1266	SI	East Dam	43.96483333	-104.40625	2.671	--	--	Combined Ash	Clay	Excluded
1831	Otto E. Eckert Station	586	SI	EPRI 5	--	--	151	4462.809917	29.55503257	Combined Ash	--	Excluded
6254	Ottumwa	1045	LF	Ottumwa Midland Landfill	41.07772222	-92.45022222	--	--	--	Combined Ash	Yes	--
6254	Ottumwa	205	SI	Monofill Leachate Retention Pond	--	--	--	1	--	Combined Ash	--	Excluded
6254	Ottumwa	206	SI	Monofill Storm Water Retention Pond	--	--	2	18	9	--	--	Excluded
6254	Ottumwa	207	SI	Main Ash Pond	--	--	18	229	12.72222222	Combined Ash	None	--
6254	Ottumwa	208	SI	Zero Liquid Discharge Pond	--	--	17	319	18.76470588	Combined Ash	None	Excluded
1378	Paradise	548	SI	Fly Ash Extension Area Pond	--	--	203	3935	19.38423645	Combined Ash	--	--
1378	Paradise	549	SI	Scrubber Sludge Complex	--	--	255	532	2.08627451	Combined Ash	--	--
1378	Paradise	550	SI	Slag Areas 2A & 2B	--	--	27	600	22.22222222	Combined Ash	--	Excluded
6248	Pawnee	1046	LF	Pawnee Station Landfill	40.20954167	-103.6840472	--	--	--	Combined Ash	None	--
6248	Pawnee	191	SI	Evaporative Pond C	--	--	11	96	8.727272727	Combined Ash	--	--
6248	Pawnee	192	SI	Intermediate Quality (IQ) Water Pond	--	--	4	48	12	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6248	Pawnee	193	SI	New Bottom Ash Water Recovery Pond	--	--	6	52	8.666666667	Combined Ash	--	--
6248	Pawnee	194	SI	Ash Disposal Facility (ADF)	--	--	34	1349	39.67647059	Combined Ash	--	--
6248	Pawnee	195	SI	Ash Water Recovery Pond	--	--	1	5	5	Combined Ash	--	Excluded
6248	Pawnee	196	SI	Evaporative Pond B	--	--	15	138	9.2	Combined Ash	--	--
6248	Pawnee	197	SI	Bottom Ash Disposal Pond	--	--	13	250	19.23076923	Combined Ash	--	Excluded
6238	Pearl Station	1211	SI	AP	39.44888889	-90.61555556	12.7988981	127.9889807	10	Combined Ash	None	--
3938	Philip Sporn	157	SI	Unit 5 (Fly Ash Pond)	38.97361111	-81.93777778	70.3	1965	27.95163585	Combined Ash	None	--
3938	Philip Sporn	156	SI	Bottom Ash Pond	38.96888889	-81.92888889	9.5	256	26.94736842	Ash & Coal Refuse	None	--
3938	Philip Sporn	979	LF	--	--	--	--	--	--	Combined Ash	--	--
2843	Picway	702	SI	[blank]	39.792655	-83.007777	23	275	11.95652174	--	--	--
7902	Pirkey	236	SI	Scrubber Sludg Landfill Runoff Pond	32.45136111	-94.49844444	12.88	25	1.940993789	FGD Waste	None	Excluded
7902	Pirkey	233	SI	West Bottom Ash Pond	32.46736111	-94.49172222	30.85	188	6.094003241	Combined Ash	None	--
7902	Pirkey	235	SI	Secondary Bottom Ash Pond	32.46538889	-94.48772222	2.65	12	4.528301887	Combined Ash	None	--
7902	Pirkey	237	SI	Surge Pond	32.46297222	-94.48741667	4.7	19	4.042553191	FGD Waste	None	Excluded
7902	Pirkey	234	SI	East Bottom Ash Pond	32.46705556	-94.48675	30.85	188	6.094003241	Combined Ash	None	--
7902	Pirkey	238	SI	Auxilliary Surge Pond	32.46447222	-94.48580556	4.3	64	14.88372093	FGD Waste	None	--
7902	Pirkey	1132	LF	--	--	--	--	--	--	Combined Ash	Composite	--
59	Platte	1047	LF	Ash Disposal Phase II	40.85487778	-98.35371667	--	--	--	Combined Ash	None	--
59	Platte	1048	LF	Ash Disposal Phase I	40.85370833	-98.35303611	--	--	--	Combined Ash	None	Excluded
6170	Pleasant Prairie	1049	LF	Pleasant Prairie	42.56166667	-87.90111111	26	4028.92562	154.9586777	Combined Ash	Yes	--
6004	Pleasants Power Station	1050	LF	McElroy's Run	39.36819	-81.271275	--	--	--	Combined Ash	Yes	--
6004	Pleasants Power Station	17	SI	McElroy's Run Embankment	39.36666667	-81.27083333	219	20000	91.32420091	Combined Ash	None	--
7242	Polk	1051	LF	Slag Pile	27.72611111	-81.99138889	--	--	--	Combined Ash	Yes	--
3113	Portland	1020	LF	Quarry 1	40.87027778	-75.20027778	2.3	4.958448118	2.155847008	Combined Ash	None	Excluded
3113	Portland	1052	LF	Bangor Landfill	40.87194444	-75.19833333	16.6	954.5454545	57.50273823	Combined Ash	Composite	--
3113	Portland	1043	LF	Quarry 2 & 3	40.87027778	-75.19805556	12	25.45454545	2.121212121	Combined Ash	None	Excluded
3113	Portland	1201	SI	West Sedimentation Basin	40.90611111	-75.07777778	0.89990817	3.130257117	3.478418367	Combined Ash	None	--
3113	Portland	1200	SI	East Sedimentation Basin	40.90611111	-75.0775	0.89990817	3.130257117	3.478418367	Combined Ash	None	--
3113	Portland	1199	SI	IWT Sedimentation Basin	40.90638889	-75.0775	1.48	--	--	Combined Ash	Yes	Excluded
3113	Portland	1041	LF	-999	--	--	--	--	--	Combined Ash	None	Excluded
879	Powerton	1228	SI	East Yard Runoff Basin	40.53916667	-89.68027778	8.38	--	--	Combined Ash	None	Excluded
879	Powerton	1231	SI	Metal Cleaning Basin	40.54472222	-89.67777778	1.91000918	16.52892562	8.653846154	Combined Ash	None	Excluded
879	Powerton	1229	SI	Secondary Ash Settling Basin	40.54638889	-89.6775	1.78145087	23.15886134	13	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
879	Powerton	1227	SI	Ash Surge Basin	40.54638889	-89.67638889	8.14049587	113.9669421	14	Combined Ash	None	--
879	Powerton	1230	SI	Ash Bypass Basin	40.54194444	-89.67611111	0.90679522	6.081267218	6.706329114	Combined Ash	None	--
879	Powerton	1233	SI	Limestone Runoff Basin	40.545	-89.675	8.38	--	--	Combined Ash	Yes	Excluded
879	Powerton	1232	SI	41	40.54722222	-89.67416667	12.855831	51.42332415	4	Combined Ash	None	Excluded
3140	PPL Brunner Island	1114	LF	Disposal Area 8	40.08666667	-76.68833333	--	--	--	Combined Ash	Yes	--
3140	PPL Brunner Island	95	SI	Ash Basin No.6	40.086838	-76.688102	70	2600	37.14285714	Combined Ash	--	--
3140	PPL Brunner Island	93	SI	Industrial Waste Treatment Basin	40.078064	-76.680176	7	20	2.857142857	--	--	Excluded
3140	PPL Brunner Island	94	SI	Equalizatipond	40.07666	-76.678687	1	5	5	Combined Ash	--	--
3149	PPL Montour	1115	LF	Ash Area No. 3	41.06305556	-76.66111111	--	--	--	Combined Ash	Yes	--
3149	PPL Montour	1011	LF	Ash Area No. 2	41.06416667	-76.65138889	--	--	--	Combined Ash	--	Excluded
3149	PPL Montour	96	SI	Silo Runoff Pond	--	--	--	1	--	Combined Ash	--	Excluded
3149	PPL Montour	97	SI	Ash Area 3 Leachate Runoff Basin	--	--	2	11	5.5	Combined Ash	--	Excluded
3149	PPL Montour	98	SI	Detention Basin	--	--	21	53	2.523809524	--	--	Excluded
3149	PPL Montour	99	SI	Stormwater Basin	--	--	2	13	6.5	--	--	Excluded
3149	PPL Montour	100	SI	Ash Basin No. 1	--	--	143	5070	35.45454545	Combined Ash	--	--
1073	Prairie Creek	487	SI	Ash Pond #10	--	--	--	1	--	Combined Ash	--	--
1073	Prairie Creek	488	SI	Ash Pond #5	--	--	1	12	12	Combined Ash	--	--
1073	Prairie Creek	489	SI	Ash Pond #6	--	--	1	14	14	Combined Ash	--	--
1073	Prairie Creek	490	SI	Ash Pond #7	--	--	--	1	--	Combined Ash	--	--
1073	Prairie Creek	491	SI	Ash Pond #3	--	--	1	7	7	Combined Ash	--	--
1073	Prairie Creek	492	SI	Ash Pond #2	--	--	1	8	8	Combined Ash	--	--
1073	Prairie Creek	493	SI	Ash Pond #4	--	--	1	8	8	Combined Ash	--	--
1073	Prairie Creek	494	SI	Ash Pond #1	--	--	--	4	--	Combined Ash	--	--
1073	Prairie Creek	495	SI	Ash Pond #8 - Plant Drains	--	--	--	--	--	Combined Ash	--	--
1073	Prairie Creek	496	SI	Ash Pond #9 - Dumper Building	--	--	--	1	--	Combined Ash	--	--
1769	Presque Isle	1014	LF	Presque Isle Power Plant Ash Landfill #2	46.587834	-87.476013	--	--	--	Combined Ash	Yes	Excluded
1769	Presque Isle	1012	LF	Presque Isle Power Plant Ash Landfill #3	46.584725	-87.473626	292	8801.652893	30.14264689	Combined Ash	Yes	--
1769	Presque Isle	1013	LF	Presque Isle Power Plant Ash Landfill #1	46.587875	-87.469134	--	--	--	Combined Ash	None	Excluded
2403	PSEG Hudson Generating Station	1015	LF	Landfill 1	40.754374	-74.079108	--	--	--	Combined Ash	None	--
2403	PSEG Hudson Generating Station	1352	SI	South Pond	40.755306	-74.078844	4.233	59.13682277	13.97042825	Combined Ash	Clay	Excluded
2403	PSEG Hudson Generating Station	1351	SI	North Pond	40.75180556	-74.07522222	4.306	52.93847567	12.29411883	Combined Ash	Clay	Excluded
2408	PSEG Mercer Generating Station	1197	SI	South Pond	40.18036111	-74.72963889	0.854	--	--	Combined Ash	None	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
2408	PSEG Mercer Generating Station	1198	SI	North Pond	40.17874444	-74.72816667	0.854	--	--	Combined Ash	None	Excluded
2408	PSEG Mercer Generating Station	1016	LF	Landfill 1	40.18225	-74.71694444	--	--	--	Combined Ash	None	--
4072	Pulliam	1017	LF	Pulliam Landfill	44.54388889	-88.01666667	--	--	--	Combined Ash	None	Excluded
4072	Pulliam	1212	SI	Pulliam Waste Water Pond	44.54388889	-88.01305556	0.12454086	1.930394858	15.50009217	Ash & Coal Refuse	None	--
1295	Quindaro	1030	LF	Quindaro Ash Landfill	39.14894444	-94.64483333	--	--	--	Combined Ash	Yes	--
6639	R D Green	1019	LF	Green Station Landfill	37.63416667	-87.50444444	--	--	--	Combined Ash	None	--
6639	R D Green	220	SI	Ash Pond Dam #0980	37.63438889	-87.50400278	21.3	--	--	Combined Ash	None	--
2864	R. E. Burger	1381	SI	Bottom Ash Pond	39.91289722	-80.76889444	3.44352617	40.17447199	11.66666667	Combined Ash	None	Excluded
2864	R. E. Burger	1380	SI	Fly Ash Pond	39.910125	-80.76314444	9.50413223	109.0449954	11.47342995	Combined Ash	None	Excluded
2864	R. E. Burger	976	LF	--	--	--	--	--	--	Combined Ash	--	Excluded
1008	R. Gallagher	460	SI	Ash Pond A	38.25655833	-85.84235	37	936	25.2972973	Combined Ash	None	--
1008	R. Gallagher	461	SI	Secondary Ash Pond	38.25681111	-85.83926389	4.5	63	14	Combined Ash	None	--
1008	R. Gallagher	1023	LF	N/A	--	--	--	--	--	Combined Ash	--	--
1008	R. Gallagher	1024	LF	N/A	--	--	--	--	--	Combined Ash	--	--
1008	R. Gallagher	1025	LF	N/A	--	--	--	--	--	Combined Ash	--	--
1008	R. Gallagher	1026	LF	N/A	--	--	--	--	--	Combined Ash	--	--
1008	R. Gallagher	1027	LF	N/A	--	--	--	--	--	Combined Ash	--	Excluded
1008	R. Gallagher	1029	LF	N/A	--	--	--	--	--	Combined Ash	--	Excluded
1008	R. Gallagher	1053	LF	N/A	--	--	--	--	--	Combined Ash	--	Excluded
1008	R. Gallagher	1056	LF	N/A	--	--	--	--	--	Combined Ash	--	Excluded
1008	R. Gallagher	1001	LF	--	--	--	--	--	--	Combined Ash	--	--
1570	R. Paul Smith Power Station	1083	LF	CCB Landfill	39.58972222	-77.83666667	--	--	--	Combined Ash	Yes	--
1570	R. Paul Smith Power Station	562	SI	Ash Pond #4	39.58741944	-77.83118611	11	218	19.81818182	Combined Ash	Composite	--
1570	R. Paul Smith Power Station	561	SI	Ash Pond #3	39.59195556	-77.83095	6	104	17.33333333	Combined Ash	None	--
2790	R.M. Heskett Station	1080	LF	Ash Disposal Site	46.867451	-100.897253	58	960.7438017	16.5645483	Combined Ash	Yes	--
2790	R.M. Heskett Station	1081	LF	Old Ash Landfill	46.87	-100.8902778	--	--	--	Combined Ash	None	Excluded
6085	R.M. Schahfer	68	SI	Gypsum Storage (Units 14&15)A	41.21004722	-87.02274722	45	--	--	FGD Waste	None	--
6085	R.M. Schahfer	54	SI	Waste Disposal Area	41.20505	-87.02237778	75	1165	15.53333333	Combined Ash	None	Excluded
6085	R.M. Schahfer	56	SI	Material Storage Runoff Basin	41.21239444	-87.01941389	12	48	4	FGD Waste	None	--
6085	R.M. Schahfer	58	SI	Gypsum Storage (Units 14&15)B	41.20936944	-87.01741944	9.5	--	--	FGD Waste	None	--
6085	R.M. Schahfer	55	SI	Recycle Basin	41.20560556	-87.01729722	30	372	12.4	Combined Ash	None	--
6085	R.M. Schahfer	67	SI	Metal Cleaning Waste Basin	41.21192222	-87.01636389	12	48	4	FGD Waste	None	--
6085	R.M. Schahfer	57	SI	FGD Landfill Stormwater Runoff Pond	41.21859722	-87.00565556	5	12	2.4	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6085	R.M. Schahfer	1082	LF	RMSGS Landfill	41.21458333	-87.00162778	200	10661.15703	53.30578513	Combined Ash	Yes	--
6761	Rawhide	1086	LF	CCR Monofill	40.87283333	-105.0426944	150	3162.194674	21.08129783	Combined Ash	None	--
6761	Rawhide	225	SI	North Bottom Ash Transfer Pond	--	--	4	37	9.25	Combined Ash	--	--
6761	Rawhide	226	SI	South Bottom Ash Transfer Pond	--	--	4	37	9.25	Combined Ash	--	--
6761	Rawhide	996	LF	--	--	--	--	--	--	Combined Ash	--	--
8219	Ray D Nixon	1087	LF	Clear Spring Ranch Ash Landfill	38.60823	-104.7132283	--	--	--	Combined Ash	None	--
8219	Ray D Nixon	1255	SI	Nixon Equalization Basin	38.62931167	-104.6996264	3.71271809	40.9884068	11.03999975	Combined Ash	None	Excluded
55076	Red Hills Generating Facility	1256	SI	AMU Basin	33.3825	-89.21888889	2.62	--	--	Combined Ash	Yes	--
55076	Red Hills Generating Facility	1088	LF	AMU	33.37972222	-89.21583333	--	--	--	Combined Ash	Yes	--
2324	Reid Gardner	637	SI	Pond C2	36.65886111	-114.6510806	8.5	173	20.35294118	FGD Waste	Composite	Excluded
2324	Reid Gardner	632	SI	Pond C1	36.65701111	-114.649775	14	115	8.214285714	FGD Waste	Composite	Excluded
2324	Reid Gardner	631	SI	Pond B3	36.65356389	-114.649225	8.1	90	11.11111111	FGD Waste	Composite	--
2324	Reid Gardner	630	SI	Pond B2	36.65486111	-114.6482694	12.4	148	11.93548387	FGD Waste	Composite	--
2324	Reid Gardner	634	SI	Pond B1	36.65599444	-114.6467972	13.4	193	14.40298507	FGD Waste	Composite	--
2324	Reid Gardner	635	SI	Pond E2	36.65433889	-114.6403417	14.4	165	11.45833333	FGD Waste	Composite	--
2324	Reid Gardner	636	SI	Pond E1	36.65317778	-114.6386806	5.9	115	19.49152542	FGD Waste	Composite	--
2324	Reid Gardner	633	SI	Pond F	36.65478333	-114.6377	4	37	9.25	FGD Waste	Composite	--
2324	Reid Gardner	1090	LF	Landfill	--	--	112.5	2801.652893	24.90358127	Combined Ash	None	--
1740	River Rouge Power Plant	1186	SI	bottom ash pond	42.27247778	-83.11265556	1.83654729	18.36547291	10	Combined Ash	None	--
2732	Riverbend	682	SI	Primary Ash Disposal Pond	35.36520278	-80.96329444	37.2	1640	44.08602151	Combined Ash	None	--
2732	Riverbend	681	SI	Secondary Pond	35.36810556	-80.96187778	23.5	980	41.70212766	Combined Ash	None	--
1081	Riverside	501	SI	South Ash Pond	41.53555556	-90.45166667	12	140	11.66666667	Combined Ash	None	--
1081	Riverside	500	SI	North Ash Pond	41.54416667	-90.44611111	14.1	84	5.957446809	Combined Ash	None	--
1927	Riverside	594	SI	Triangle Pond	--	--	--	2	--	Combined Ash	--	Excluded
1239	Riverton	512	SI	Industrial Landfill-East and West Ponds	37.06895278	-94.70081389	28	992	35.42857143	Combined Ash	None	--
3945	Rivesville Power Station	1358	SI	Bottom ash basin	39.530214	-80.115744	0.4323	--	--	Combined Ash	None	--
3945	Rivesville Power Station	1356	SI	Lagoon 1	39.53027778	-80.11527778	0.46717172	4.671717172	10	Combined Ash	Yes	Excluded
3945	Rivesville Power Station	1355	SI	Lagoon 2	39.53055556	-80.11444444	0.40174472	4.017447199	10	Combined Ash	Yes	Excluded
3945	Rivesville Power Station	1095	LF	Closed ash site	39.53888889	-80.09916667	60	495.8677686	8.26446281	Combined Ash	None	Excluded
3945	Rivesville Power Station	1116	LF	Ash disposal	39.5392	-80.094436	40	780.5325987	19.51331497	Combined Ash	None	--
3945	Rivesville Power Station	1357	SI	Disposal Site Sedimentation Pond	39.54	-80.09055556	0.59917355	3.379935721	5.640996169	Combined Ash	Clay	Excluded
6166	Rockport	179	SI	Bottom Ash Complex	37.91877222	-87.03744444	137	1640	11.97080292	Combined Ash	None	--
6166	Rockport	1097	LF	Rockport Plant Ash Landfill	--	--	--	--	--	Combined Ash	Yes	--
6190	Rodemacher	186	SI	Fly Ash Pond	31.39273056	-92.704125	42	670	15.95238095	Combined Ash	Clay	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6190	Rodemacher	187	SI	Bottom Ash Pond	31.39666667	-92.70138889	43	641	14.90697674	Combined Ash	Clay	--
6190	Rodemacher	185	SI	Leachate Pond	31.39035833	-92.70029722	8	--	--	Combined Ash	Composite	--
2712	Roxboro Steam Electric Plant	661	SI	FGD Flush Pond	36.47371944	-79.07788611	3.1	53	17.09677419	FGD Waste	Composite	--
2712	Roxboro Steam Electric Plant	664	SI	FGD Settling Pond	36.46875	-79.07121111	16.6	420	25.30120482	FGD Waste	Composite	--
2712	Roxboro Steam Electric Plant	1096	LF	Fly ash landfill	36.47888889	-79.06166667	55	2581.61157	46.93839219	Combined Ash	None	--
2712	Roxboro Steam Electric Plant	662	SI	West Ash Pond Dam & Dikes 1, 2,,& 4	36.51852222	-79.022475	2400	--	--	Combined Ash	--	--
2712	Roxboro Steam Electric Plant	663	SI	Ash Pond	--	--	240	4800	20	Combined Ash	None	--
1393	RS Nelson	1330	SI	Coal Ash Settling Pond Unit 6	30.28611111	-93.30166667	11.4784206	60.83562902	5.3	Ash & Coal Refuse	Composite	Excluded
1393	RS Nelson	1085	LF	Unit 6 Coal Ash	30.27666667	-93.29833333	--	--	--	Combined Ash	Yes	--
1393	RS Nelson	1329	SI	CFB Ash Landfill Retention Basin	30.27805556	-93.28722222	2.47546488	11.96787649	4.834597577	Combined Ash	Composite	Excluded
1393	RS Nelson	1084	LF	CFB Ash Landfill	30.2775	-93.28694444	--	--	--	Combined Ash	Yes	--
6155	Rush Island	1091	LF	-999	--	--	--	--	--	Combined Ash	None	Excluded
6155	Rush Island	178	SI	Ash Pond	--	--	104	7000	67.30769231	Combined Ash	None	--
2451	San Juan	1308	SI	Solids Waste Pit	36.79915833	-108.4354222	21.293	--	--	FGD Waste	Yes	Excluded
6183	San Miguel	1094	LF	Mine Pits	28.64166667	-98.48972222	--	--	--	Combined Ash	Yes	--
6183	San Miguel	1093	LF	Emergency Ash Pit	28.68027778	-98.48333333	--	--	--	Combined Ash	Yes	Excluded
6183	San Miguel	1366	SI	Ash Water Transport Pond 1B	28.69944444	-98.47527778	13	216	16.61538462	Combined Ash	Clay	--
6183	San Miguel	1367	SI	Ash Water Transport Pond 1A	28.70027778	-98.47527778	12.7704316	216	16.91407205	Combined Ash	Clay	--
6183	San Miguel	1365	SI	Equalization Pond	28.70138889	-98.46777778	25	410	16.4	FGD Waste	Clay	Excluded
6648	Sandow No 4	1067	LF	Bottom Ash Fines	30.5401	-97.07942	51	1606.97888	31.5093898	Combined Ash	None	--
6648	Sandow No 4	1065	LF	Class II Landfill	30.54527778	-97.07883333	45	459.136823	10.20304051	Combined Ash	None	--
6648	Sandow No 4	1092	LF	B Pit	30.54713889	-97.07233333	56	2800.734619	50.01311819	Combined Ash	Clay	--
6648	Sandow No 4	1089	LF	Comb Slag-Bot Ash Landfills	30.56044444	-97.06358333	237	2295.684114	9.68643086	Combined Ash	None	--
6648	Sandow No 4	1057	LF	-999	--	--	--	--	--	Combined Ash	--	Excluded
6648	Sandow No 4	221	SI	EPRI 8	--	--	45	837.9997934	18.62221763	Ash & Coal Refuse	--	--
6257	Scherer	209	SI	Settlement-Recycle Pond	--	--	--	--	--	--	None	--
6257	Scherer	210	SI	Ash Pond	--	--	553	15955	28.8517179	Ash & Coal Refuse	None	--
2367	SCHILLER	1058	LF	Closed Landfill	43.093	-70.78186111	--	--	--	Combined Ash	None	Excluded
642	Scholz	1348	SI	Lower Pond	30.66897222	-84.89230556	11.2	168	15	Ash & Coal Refuse	None	--
642	Scholz	1347	SI	Middle Pond	30.66911111	-84.89086111	9.7	145.5	15	Ash & Coal Refuse	None	--
642	Scholz	1346	SI	Upper Pond	30.66983333	-84.89033333	10.9	375.8088843	34.47787929	Ash & Coal Refuse	None	--
136	Seminole Generating Station	1059	LF	FGD Landfill	29.74237778	-81.62952778	--	--	--	Combined Ash	Yes	--
1379	Shawnee	1060	LF	AFBC Fly Ash &	37.144521	-88.780926	2.5	39.02662994	15.61065197	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
1379	Shawnee	1061	LF	-999	--	--	--	--	--	Combined Ash	--	--
1379	Shawnee	551	SI	Ash Pond	--	--	180	3099	17.21666667	Combined Ash	--	--
1379	Shawnee	552	SI	Consolidated Waste Dry Stack	--	--	200	20575	102.875	Combined Ash	--	--
3131	Shawville	1248	SI	Pond B	41.06063889	-78.37491667	1.61193756	12.21303949	7.576620713	Combined Ash	Composite	--
3131	Shawville	1246	SI	Pond 2	41.06258333	-78.37202778	1.212	--	--	Combined Ash	None	Excluded
3131	Shawville	1247	SI	Pond A	41.06258333	-78.37202778	1.66083563	12.64921947	7.616177812	Combined Ash	Composite	--
3131	Shawville	1245	SI	Pond 1	41.06377778	-78.37033333	1.212	--	--	Combined Ash	None	Excluded
3131	Shawville	1063	LF	Original	41.057479	-78.366463	--	--	--	Combined Ash	None	Excluded
3131	Shawville	1062	LF	Current	41.05841	-78.363989	68	4958.677686	72.92173068	Combined Ash	Yes	--
2277	Sheldon Station	1064	LF	Ash Landfill No. 4	40.555094	-96.793041	9	232.4380165	25.82644628	Combined Ash	Yes	--
2277	Sheldon Station	1066	LF	Ash Landfill No. 2	40.55583333	-96.78833333	--	--	--	Combined Ash	None	Excluded
2277	Sheldon Station	1360	SI	PROCESS POND	40.56111111	-96.78805556	2.14150597	19.52167126	9.115861241	Combined Ash	Clay	Excluded
2277	Sheldon Station	1078	LF	Ash Landfill No. 3	40.55277778	-96.7875	--	--	--	Combined Ash	Yes	Excluded
2277	Sheldon Station	1055	LF	Ash Landfill No. 1	40.56527778	-96.78722222	--	--	--	Combined Ash	None	Excluded
6090	Sherburne County	1068	LF	Landfill	45.38972222	-93.90555556	--	--	--	Combined Ash	Yes	--
6090	Sherburne County	69	SI	Bottom Ash Pond	45.37458333	-93.89047222	18	620	34.44444444	Combined Ash	Clay	--
6090	Sherburne County	70	SI	Pond No. 1	45.37111111	-93.89011111	61	3099	50.80327869	Combined Ash	Clay	--
6090	Sherburne County	71	SI	Pond No. 2	45.36963889	-93.884	100	6198	61.98	Combined Ash	Clay	--
6090	Sherburne County	73	SI	Pond 3 N	45.37172222	-93.87838889	50	1860	37.2	Combined Ash	Composite	--
6090	Sherburne County	72	SI	Recycle Basin	--	--	7	--	--	Combined Ash	--	--
6090	Sherburne County	74	SI	Unit No. 3 Dry Ash Landfill Basin	--	--	3	--	--	Combined Ash	--	--
2094	Sibley	1069	LF	Utility Waste Landfill	39.17222222	-94.16333333	--	--	--	Combined Ash	Yes	--
2094	Sibley	603	SI	Slag Settling Pond	--	--	1	--	--	Combined Ash	None	--
2094	Sibley	604	SI	Fly Ash Settling Pond	--	--	15	224	14.93333333	Combined Ash	Clay	--
6768	Sikeston Power Station	227	SI	Fly Ash Pond	36.88083333	-89.61472222	30	560	18.66666667	Combined Ash	Clay	--
6768	Sikeston Power Station	228	SI	Bottom Ash Pond	36.8775	-89.61388889	54	891	16.5	Combined Ash	Clay	--
2107	Sioux	614	SI	Fly Ash Pond	--	--	60	960	16	Combined Ash	Composite	--
2107	Sioux	615	SI	Bottom Ash Pond	--	--	47	2100	44.68085106	Combined Ash	None	--
1058	Sixth Street	486	SI	Ash Pond 1	41.98642	-91.663308	0.45	7	15.55555556	Combined Ash	--	Excluded
1058	Sixth Street	483	SI	Ash Pond 2	41.98679	-91.662879	0.52	7	13.46153846	Combined Ash	--	Excluded
1058	Sixth Street	485	SI	Ash Pond 4	41.98631	-91.662258	3	32	10.66666667	Combined Ash	--	Excluded
1058	Sixth Street	484	SI	Ash Pond 3	41.987194	-91.661573	4	40	10	Combined Ash	--	Excluded
1613	Somerset Station	566	SI	North Lift Pit	--	--	--	--	--	Combined Ash	--	Excluded
1613	Somerset Station	567	SI	South Pond	--	--	--	2	--	Combined Ash	--	Excluded
1613	Somerset Station	568	SI	Coal Pile Run-Off Sump	--	--	--	--	--	Combined Ash	--	Excluded
1613	Somerset Station	569	SI	Equalization Basin	--	--	--	--	--	Combined Ash	--	Excluded
6095	Sooner	1260	SI	F07	36.45611111	-97.04583333	2.5	7.800022957	3.120009183	Combined Ash	Clay	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6095	Sooner	1259	SI	F04	36.46555556	-97.04305556	21	124.0005601	5.904788578	Combined Ash	Clay	--
6061	South Mississippi El Pwr Assn	1021	LF	West Active Landfill	31.21277778	-89.39944444	--	--	--	Combined Ash	--	--
6061	South Mississippi El Pwr Assn	1022	LF	Cells 1-6	31.20916667	-89.39833333	--	--	--	Combined Ash	Yes	--
6061	South Mississippi El Pwr Assn	1008	LF	East Inactive Landfill	31.21111111	-89.39777778	--	--	--	Combined Ash	--	--
6061	South Mississippi El Pwr Assn	1353	SI	Scrubber Supply Pond	31.21277778	-89.39555556	29.33	--	--	FGD Waste	Yes	--
6061	South Mississippi El Pwr Assn	1354	SI	Emergency Dump Pond	31.21527778	-89.39555556	29.33	--	--	FGD Waste	Yes	--
4041	South Oak Creek	1072	LF	Oak Creek South Ash Landfill	42.84580556	-87.84716667	--	--	--	Combined Ash	None	Excluded
4041	South Oak Creek	1070	LF	Caledonia Ash Landfill	42.83869444	-87.84177778	175	5361.57025	30.63754429	Combined Ash	Yes	--
4041	South Oak Creek	1071	LF	Oak Creek North Ash Landfill	42.85277778	-87.83872222	--	--	--	Combined Ash	None	Excluded
6195	Southwest Power Station	1074	LF	Demonstration	37.14555556	-93.38694444	--	--	--	Combined Ash	None	Excluded
6195	Southwest Power Station	1269	SI	West Ash Pond	37.1475	-93.38555556	5	--	--	Combined Ash	Clay	--
6195	Southwest Power Station	1268	SI	East Ash Pond	37.14777778	-93.38472222	3	--	--	Combined Ash	Clay	--
6195	Southwest Power Station	1073	LF	Landfill active	37.14805556	-93.38083333	--	--	--	Combined Ash	None	--
8223	Springerville	1384	SI	Process Water Collection pond	34.319558	-109.160581	0.61310836	2.301652893	3.754071966	Combined Ash	None	Excluded
8223	Springerville	1075	LF	Ash LandFill	34.311956	-109.155852	900	75757.57576	84.17508418	Combined Ash	None	--
1743	St Clair Power Plant	584	SI	Pond	--	--	--	--	--	Combined Ash	--	--
207	St Johns River Power Park	1076	LF	Area 2	30.43916667	-81.55222222	40	1794.600551	44.86501377	Combined Ash	None	--
207	St Johns River Power Park	1018	LF	Area 1	30.43833333	-81.54583333	72	4037.667585	56.07871646	Combined Ash	None	Excluded
207	St Johns River Power Park	1077	LF	Area B	30.443508	-81.538978	35	4032	115.2	Combined Ash	None	--
2824	Stanton	997	LF	Old Ash Landfill	47.24444444	-101.3377778	108	561.5702479	5.199724518	Combined Ash	Yes	Excluded
2824	Stanton	937	LF	Fly Ash Landfill	47.2425	-101.3344444	37.1	1137.396694	30.65759284	Combined Ash	Clay	--
2824	Stanton	940	LF	Bottom Ash Landfill	47.28277778	-101.3333333	10.5	283.8842975	27.03659976	Combined Ash	Clay	--
2824	Stanton	692	SI	South Bottom Ash Pond/Cell 2	47.281834	-101.331463	4	40	10	Combined Ash	--	Excluded
2824	Stanton	691	SI	North Bottom Ash Pond/Cell	47.283774	-101.33139	4	37	9.25	Combined Ash	--	--
2824	Stanton	690	SI	Middle Bottom Ash Pond/Retention Cell	47.28279	-101.331359	3	38	12.66666667	Combined Ash	--	--
564	Stanton Energy Center	942	LF	CWSA	28.48138889	-81.18027778	312	--	--	Combined Ash	None	--
1131	Streeter Station	1028	LF	Leversee Road	42.544536	-92.420248	--	--	--	Combined Ash	None	--
3152	Sunbury Generation LP	101	SI	Residual Waste Ash Basin No. 1	40.83027778	-76.83472222	62	1139	18.37096774	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
50951	Sunnyside Cogen Associates	944	LF	Sunnyside Ash Landfill - Landfill 1	39.53888889	-110.4105556	--	--	--	Combined Ash	None	--
1077	Sutherland	499	SI	Unit 3 Initital Settling Pond	42.047092	-92.85607	0.13	1	7.692307692	Combined Ash	--	--
1077	Sutherland	498	SI	Unit 1 & 2 Initial Settling Pond	42.047729	-92.855957	0.3	2	6.666666667	Combined Ash	--	--
1077	Sutherland	497	SI	Main Ash Settling Pond	42.047192	-92.854642	5.75	52	9.043478261	Combined Ash	--	--
1077	Sutherland	1117	LF	Marshalltown West	42.0686	-92.843121	17	--	--	Combined Ash	None	Excluded
1077	Sutherland	1118	LF	Marshalltown East	42.068625	-92.836794	2.58	86.46694215	33.51431866	Combined Ash	Clay	Excluded
10075	Taconite Harbor Energy Center	948	LF	Cell 2	47.53688389	-90.95482778	--	--	--	Combined Ash	Yes	--
10075	Taconite Harbor Energy Center	961	LF	Cell 3	47.536917	-90.954561	--	--	--	Combined Ash	Yes	--
10075	Taconite Harbor Energy Center	947	LF	Cell 1	47.53689083	-90.95415556	--	--	--	Combined Ash	Yes	--
988	Tanners Creek	418	SI	Fly Ash Pond - Clear Pond and Original (Lower Pond) Dike	39.07356944	-84.88386111	12	--	--	Combined Ash	Composite	--
988	Tanners Creek	417	SI	Fly Ash Pond - Upper Pond	39.07691667	-84.88013611	47.7	--	--	Combined Ash	None	--
988	Tanners Creek	419	SI	Fly Ash Pond	39.076917	-84.880136	60	1076	17.93333333	Combined Ash	Composite	--
988	Tanners Creek	950	LF	Ash Landfill	39.07527778	-84.875	--	--	--	Combined Ash	Yes	--
988	Tanners Creek	416	SI	Bottom Ash Complex	39.077375	-84.86681111	63.3	1645	25.98736177	Combined Ash	None	--
988	Tanners Creek	415	SI	Boiler Slag Pond (U-4)	--	--	20	820	41	Combined Ash	--	--
1252	Tecumseh Energy Center	519	SI	Area 2	39.05311111	-95.57283333	1	12	12	Combined Ash	None	--
1252	Tecumseh Energy Center	520	SI	Area 1	39.05219444	-95.57238889	2	20	10	Combined Ash	None	--
1252	Tecumseh Energy Center	1120	LF	Old Landfill	39.05583333	-95.56277778	--	--	--	Combined Ash	None	Excluded
1252	Tecumseh Energy Center	1133	LF	Landfill 322	39.04805556	-95.5625	32.2	331.6115702	10.29849597	Combined Ash	None	--
1252	Tecumseh Energy Center	995	LF	--	--	--	4.12	--	--	Combined Ash	--	--
2168	Thomas Hill	953	LF	MO-717502	39.53902583	-92.64948111	--	--	--	Combined Ash	None	--
2168	Thomas Hill	624	SI	Ash Pond Cell 2 - Middle	39.54277778	-92.63805556	12	31	2.583333333	Combined Ash	None	--
2168	Thomas Hill	627	SI	Ash Pond Slag Dewatering	39.54277778	-92.63805556	3	10	3.333333333	Combined Ash	None	--
2168	Thomas Hill	625	SI	Ash Pond Cell 1 - Upper	--	--	7	--	--	Combined Ash	--	--
2168	Thomas Hill	626	SI	Ash -3 Landfill	--	--	24	1050	43.75	--	--	--
2168	Thomas Hill	628	SI	Ash - 2 Landfill	--	--	44	1446	32.86363636	Combined Ash	--	--
2168	Thomas Hill	629	SI	Ash Pond Cell 3 - Lowest	--	--	10	50	5	Combined Ash	--	--
3115	Titus	955	LF	Old Ash Site (Flyash)	40.31472222	-75.91694444	--	--	--	Combined Ash	None	Excluded
3115	Titus	956	LF	Old Ash Site (Bottom Ash)	40.30944444	-75.91083333	--	--	--	Combined Ash	None	Excluded
3115	Titus	957	LF	Eyler Station Ash Site	40.31111111	-75.91083333	--	--	--	Combined Ash	None	Excluded
3115	Titus	954	LF	Beagle Club Ash Disposal Site	40.30583333	-75.90361111	39	1859.504132	47.67959313	Combined Ash	None	--
6194	Tolk	1161	LF	116	34.200988	-102.569056	--	--	--	Combined Ash	None	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
3845	TransAlta Centralia Generation	959	LF	Limited Purpose Landfill	46.75694444	-122.8166667	--	--	--	Combined Ash	Yes	--
1745	Trenton Channel Power Plant	960	LF	Sibley Quarry	42.16305556	-83.17472222	--	--	--	Combined Ash	None	--
1745	Trenton Channel Power Plant	585	SI	Pond	--	--	--	--	--	Combined Ash	--	--
6071	Trimble Co.	44	SI	Coal Combustion Waste Pond	38.59333333	-85.41777778	82	4841	59.03658537	Combined Ash	Clay	--
56224	TS Power Plant	816	LF	--	--	--	--	--	--	Combined Ash	--	--
7030	Twin Oaks Power One	928	LF	Ash Landfill	31.097149	-96.684213	61	3807.317975	62.41504877	Combined Ash	Yes	--
1361	Tyrone	537	SI	Ash Pond	38.04972222	-84.84527778	13	--	--	Combined Ash	None	--
1361	Tyrone	536	SI	Secondary Ash Pond	38.05138889	-84.84361111	1.2	--	--	Combined Ash	None	--
3295	Urquhart	1107	LF	Urquhart Landfill 1	33.429539	-81.91508	--	--	--	Combined Ash	None	--
3295	Urquhart	111	SI	Ash Pond	33.43527778	-81.91166667	9	--	--	Combined Ash	None	--
3295	Urquhart	110	SI	Ash Pond 1	--	--	1	11	11	Combined Ash	--	--
3295	Urquhart	112	SI	Ash Pond 2	--	--	1	7	7	Combined Ash	--	--
4042	Valley	920	LF	System Control Center Ash Landfill	43.05555556	-88.21694444	--	--	--	Combined Ash	Yes	Excluded
4042	Valley	919	LF	Highway 59 Ash Landfill	43.01222222	-88.19583333	--	--	--	Combined Ash	None	Excluded
4042	Valley	918	LF	Highway 32 Ash Landfill	43.342715	-87.915031	--	--	--	Combined Ash	Yes	--
4042	Valley	949	LF	Caledonia Ash Landfill	42.83861111	-87.84166667	16.4	330.9917355	20.1824229	Combined Ash	Yes	--
477	Valmont	1122	LF	Valmont Station ADF	40.028601	-105.203106	--	--	--	Combined Ash	None	--
477	Valmont	1123	LF	Closed Valmont Station ADF	40.03193056	-105.1951417	--	--	--	Combined Ash	None	Excluded
477	Valmont	329	SI	West Ash Settling Pond	--	--	1	16	16	Combined Ash	--	--
477	Valmont	330	SI	East Ash Settling Pond	--	--	1	16	16	Combined Ash	--	--
477	Valmont	331	SI	Coal Pile Stormwater Runoff Pond	--	--	--	--	--	Combined Ash	--	Excluded
897	Vermilion	395	SI	North Ash Pond System	40.18636944	-87.74571944	80	2400	30	Combined Ash	None	Excluded
897	Vermilion	396	SI	New East Ash Pond System	40.17841944	-87.73732222	20.6	340	16.50485437	Combined Ash	None	Excluded
897	Vermilion	970	LF	--	--	--	--	--	--	Combined Ash	--	Excluded
6073	Victor J. Daniel Jr	924	LF	CAMU - Central Ash Mngt. Unit	30.54972222	-88.56111111	--	--	--	Combined Ash	Yes	--
6073	Victor J. Daniel Jr	1124	LF	NAMU - North Ash Mngt. Unit	30.54305556	-88.55833333	49.2016308	--	--	Combined Ash	Yes	--
6073	Victor J. Daniel Jr	925	LF	-999	--	--	--	--	--	Combined Ash	--	Excluded
6073	Victor J. Daniel Jr	938	LF	-999	--	--	--	--	--	Combined Ash	--	Excluded
6073	Victor J. Daniel Jr	45	SI	EPRI 7	--	--	20.0387942	--	--	Ash & Coal Refuse	--	--
6019	W H Zimmer	26	SI	Wastewater Pond Complex	38.878405	-84.22883	15	75	5	FGD Waste	Clay	--
6019	W H Zimmer	929	LF	Class III Residual	38.85611111	-84.16777778	--	--	--	Combined Ash	Yes	--
3470	W. A. Parish	1125	LF	WAP Landfill	29.50888889	-95.62805556	28.6832221	--	--	Combined Ash	Yes	--
3470	W. A. Parish	136	SI	Air Preheater Pond	--	--	1	4	4	Combined Ash	--	Excluded

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
3470	W. A. Parish	137	SI	Unit 5 Bottom Ash Overflow Basin	--	--	--	--	--	Combined Ash	--	--
3470	W. A. Parish	138	SI	Flue Gas Desulfurization Emergency Pond (E-Pond)	--	--	--	2	--	FGD Waste	--	--
3470	W. A. Parish	139	SI	Unit 8 Bottom Ash Overflow Basin	--	--	--	--	--	Combined Ash	--	--
3470	W. A. Parish	140	SI	Unit 7/8 Dewatering Bin Basin	--	--	--	--	--	Combined Ash	--	Excluded
3470	W. A. Parish	141	SI	Unit 7 Bottom Ash Overflow Basin	--	--	--	--	--	Combined Ash	--	--
3470	W. A. Parish	142	SI	Coal Pile Run Off Pond	--	--	24	110	4.583333333	Combined Ash	--	Excluded
3470	W. A. Parish	143	SI	Unit 6 Bottom Ash Overflow Basin	--	--	--	--	--	Combined Ash	--	--
2866	W. H. Sammis	916	LF	Hollow Rock	40.51166667	-80.68	141.6	624.0128558	4.406870451	Combined Ash	Composite	--
2866	W. H. Sammis	1383	SI	South Ash Pond	40.52722222	-80.63027778	4.61432507	64.60055096	14	Combined Ash	None	--
2866	W. H. Sammis	1382	SI	North Ash Pond	40.52805556	-80.63027778	5.09641873	71.16620753	13.96396396	Combined Ash	None	--
3264	W. S. Lee	105	SI	Secondary Ash Pond	34.60424722	-82.44513056	23	391	17	Combined Ash	None	--
3264	W. S. Lee	106	SI	Primary Active Ash Pond	34.60294167	-82.44166667	41	779	19	Combined Ash	None	--
2716	W.H. Weatherspoon Plant	667	SI	Ash Pond	34.59083333	-78.97	54.5	1375	25.2293578	Combined Ash	None	Excluded
1010	Wabash River	462	SI	South Ash Pond	39.51	-87.425	70	1450	20.71428571	Combined Ash	Composite	--
1010	Wabash River	465	SI	Primary Ash Pond Cell A	39.518056	-87.421389	69	1350	19.56521739	Combined Ash	None	--
1010	Wabash River	464	SI	Primary Ash Pond Cell B	39.51805556	-87.42138889	21	530	25.23809524	Combined Ash	None	--
1010	Wabash River	463	SI	Secondary Ash Pond	39.515	-87.42111111	7	73	10.42857143	Combined Ash	None	--
2830	Walter C Beckjord	698	SI	Ash Pond A	38.99916667	-84.29833333	83.2	--	--	Combined Ash	None	Excluded
2830	Walter C Beckjord	697	SI	Ash Pond B	38.99472222	-84.29527778	50	280	5.6	Combined Ash	None	--
2830	Walter C Beckjord	696	SI	Ash Pond C	38.98583333	-84.29416667	45	1400	31.11111111	Combined Ash	None	--
2830	Walter C Beckjord	695	SI	Ash Pond C ext.	38.97777778	-84.29305556	58	1300	22.4137931	Combined Ash	None	Excluded
2830	Walter C Beckjord	1127	LF	Beckjord Ash Landfill	39.003333	-84.281388	126	--	--	Combined Ash	None	Excluded
2830	Walter C Beckjord	1126	LF	Pond Run Ash Disposal	38.995	-84.27916667	99	3595.041322	36.31354871	Combined Ash	Clay	--
1082	Walter Scott Jr. Energy Center	932	LF	Monofill	41.1622	-95.83461111	66.9	5578.512397	83.38583553	Combined Ash	Composite	--
1082	Walter Scott Jr. Energy Center	502	SI	North Surface Impoundment	--	--	171	2046	11.96491228	Combined Ash	None	--
1082	Walter Scott Jr. Energy Center	503	SI	South Surface Impoundment	--	--	133	1326	9.969924812	Combined Ash	None	--
6052	Wansley	35	SI	Ash Pond	--	--	343	16920	49.32944606	Ash & Coal Refuse	None	--
6705	Warrick Power Plant	224	SI	EPRI 9	--	--	140	2789.256198	19.92325856	Ash & Coal Refuse	--	--
3297	Wateree	933	LF	Wateree	33.824072	-80.63195	--	--	--	Combined Ash	Yes	--
3297	Wateree	114	SI	Ash Pond No. 1	33.82061111	-80.62081944	80	1200	15	Combined Ash	None	--
3297	Wateree	113	SI	Ash Pond No. 2	33.81611111	-80.61638889	80	1200	15	Combined Ash	None	--
883	Waukegan	1311	SI	East Ash Pond	42.37888889	-87.81444444	10	110	11	Ash & Coal Refuse	Composite	--
883	Waukegan	1312	SI	West Ash Pond	42.37888889	-87.81444444	10.1	111.1	11	Ash & Coal Refuse	Composite	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
6139	Welsh	177	SI	Primary Ash Pond	33.04975	-94.84635833	98.1	307	3.129459735	Combined Ash	None	--
6139	Welsh	934	LF	Ash landfill	33.04794444	-94.84608333	--	--	--	Combined Ash	None	--
6139	Welsh	175	SI	Active Bottom Ash Storage	33.04425833	-94.84401389	20	270	13.5	Combined Ash	Composite	--
6139	Welsh	176	SI	Secondary Ash Pond	33.04848611	-94.84154444	4.2	37	8.80952381	Combined Ash	None	--
4078	Weston	1318	SI	Tertiary BAT W3&4	44.85388889	-89.65805556	1.04196511	4.784022039	4.59134573	Combined Ash	Clay	--
4078	Weston	936	LF	Weston Onsite Ash Landfill #2879	44.85611111	-89.65611111	--	--	--	Combined Ash	None	Excluded
4078	Weston	1317	SI	South Secondary BAT W3&4	44.85361111	-89.655	2.95748393	14.08613407	4.762877635	Combined Ash	Clay	--
4078	Weston	1316	SI	North Secondary BAT W3&4	44.85444444	-89.655	2.83133609	13.60479798	4.805080554	Combined Ash	Clay	--
4078	Weston	1314	SI	North Primary BAT W3&4	44.85416667	-89.65388889	0.19338843	0.096694215	0.5	Combined Ash	Clay	--
4078	Weston	1315	SI	South Primary BAT W3&4	44.85361111	-89.65361111	0.18728191	0.093640955	0.5	Combined Ash	Clay	--
4078	Weston	1313	SI	W1&2 Seepage Basin	44.86277778	-89.6525	6.51551882	38.99609734	5.985110071	Combined Ash	None	--
4078	Weston	935	LF	Weston Ash - Legner	44.72361111	-89.63694444	18	371.9008265	20.66115703	Combined Ash	Yes	--
60	Whelan Energy Center Unit 1 (WEC1)	1214	SI	Ash Pond	40.578403	-98.313878	22.9568411	183.6547291	8	Combined Ash	Yes	--
6009	White Bluff	1128	LF	Ash Landfill	34.41694444	-92.14888889	--	--	--	Combined Ash	Yes	--
1040	Whitewater Valley	1323	SI	Aux Settling Pond A3	39.804328	-84.896458	0.168	--	--	Combined Ash	None	Excluded
1040	Whitewater Valley	1321	SI	Aux Settling Pond A1	39.803906	-84.896317	0.259	--	--	Combined Ash	None	Excluded
1040	Whitewater Valley	1324	SI	Aux Settling Pond A4	39.803561	-84.896272	0.235	--	--	Combined Ash	None	Excluded
1040	Whitewater Valley	1325	SI	Bottom Ash Sluicing Pond	39.803561	-84.896272	0.18939394	1.147842057	6.060606061	Combined Ash	None	--
1040	Whitewater Valley	1322	SI	Aux Settling Pond A2	39.804125	-84.896206	0.17	--	--	Combined Ash	None	Excluded
4057	WI Power & Light Co -Rock River Generating	2	SI	Slag Pond	42.577814	-89.031436	3	29	9.666666667	Combined Ash	--	--
4057	WI Power & Light Co -Rock River Generating	3	SI	WPDES Pond 2	42.576967	-89.03059	1	14	14	Combined Ash	--	--
4057	WI Power & Light Co -Rock River Generating	1	SI	WPDES Pond 1	42.577944	-89.030346	2	17	8.5	Combined Ash	--	--
4057	WI Power & Light Co -Rock River Generating	172	SI	Final WPDES Pond	42.580952	-89.030247	4	29	7.25	Combined Ash	--	--
50	Widows Creek	59	SI	Bottom Ash Stack	--	--	32	--	--	Combined Ash	None	--
50	Widows Creek	60	SI	Dredge Cell	--	--	116	--	--	Combined Ash	None	--
50	Widows Creek	61	SI	Gypsum Stack Pond 1	--	--	10	--	--	FGD Waste	None	--
50	Widows Creek	62	SI	Gypsum Stack Pond 2A	--	--	12	--	--	FGD Waste	None	--
50	Widows Creek	63	SI	Gypsum Stack Pond 2B	--	--	14	--	--	FGD Waste	None	--
50	Widows Creek	64	SI	Gypsum Stack Pond 3	--	--	59	--	--	FGD Waste	None	--
50	Widows Creek	65	SI	Gypsum Stack Stilling Pond	--	--	9	--	--	FGD Waste	None	--
50	Widows Creek	66	SI	Pump Pond	--	--	0.25	--	--	FGD Waste	None	--
50	Widows Creek	261	SI	Ash Pond	--	--	156	11709	75.05769231	Combined Ash	--	--
50	Widows Creek	262	SI	Gypsum Stack (Wet Stacking Area)	--	--	110	10961	99.64545455	Combined Ash	--	--

Attachment A-2. WMU Information

Oris Code	Plant Name	WMU ID	WMU Type	Unit Name	Latitude	Longitude	WMU Area (acres)	WMU Capacity (acre-ft)	WMU Depth (ft)	WMU Waste Type	WMU Liner Type	Shown in Results?
50	Widows Creek	289	SI	Red Water Pond	--	--	32	--	--	Combined Ash	None	--
50	Widows Creek	290	SI	Upper/Lower Stilling Pond	--	--	8	--	--	FGD Waste	None	--
884	Will County	389	SI	EPRI 3	--	--	--	--	--	--	--	Excluded
3298	Williams	1130	LF	Hwy 17A	33.14988889	-80.05594444	--	--	--	Combined Ash	Yes	--
3298	Williams	1129	LF	Hwy 52	33.11430556	-80.04661111	--	--	--	Combined Ash	Yes	--
3946	Willow Island	917	LF	-999	--	--	--	--	--	Combined Ash	Yes	--
6249	Winyah	199	SI	West Ash Pond	33.33189167	-79.37042778	62	1178	19	Combined Ash	None	--
6249	Winyah	198	SI	Unit 3 & 4 Slurry Pond	33.33744722	-79.36841111	100	1700	17	FGD Waste	None	--
6249	Winyah	200	SI	South Ash Pond	33.32435278	-79.35452222	61	1129	18.50819672	Combined Ash	None	--
6249	Winyah	202	SI	Ash Pond B	33.31872222	-79.35136111	63	537	8.523809524	Combined Ash	None	--
6249	Winyah	203	SI	Unit 2 Slurry Pond	33.33065	-79.35086667	34	416	12.23529412	FGD Waste	None	--
6249	Winyah	201	SI	Ash Pond A	33.325525	-79.34736111	88	807	9.170454545	Combined Ash	None	--
6249	Winyah	982	LF	--	--	--	--	--	--	Combined Ash	--	--
898	Wood River	398	SI	West Ash Pond (2 cells) Cells 2E and 3	38.86955278	-90.14046111	19	210	11.05263158	Combined Ash	Clay	--
898	Wood River	397	SI	East Ash Pond (2 cells)	38.86821944	-90.13142778	38	435	11.44736842	Combined Ash	Composite	--
50611	WPS Westwood Generation, LLC	951	LF	Closed Ash Landfill	40.62305556	-76.45194444	--	--	--	Combined Ash	Yes	Excluded
6101	Wyodak Plant	80	SI	Wyodak	44.28888889	-105.3911111	15.5	320	20.64516129	Combined Ash	None	--
6101	Wyodak Plant	981	LF	--	--	--	68	2169.421489	31.90325718	Combined Ash	--	--
728	Yates	987	LF	Gypsum Solid Waste Facility	33.46638889	-84.9	--	--	--	Combined Ash	Yes	--
728	Yates	986	LF	R-6 Ash Monofill	33.453585	-84.895905	--	--	--	Combined Ash	None	--
728	Yates	367	SI	Ash Pond 3	--	--	69	434	6.289855072	Combined Ash	None	--
728	Yates	368	SI	Pond B	--	--	6	--	--	Combined Ash	None	Excluded
728	Yates	369	SI	Ash Pond 1	--	--	17	184	10.82352941	Combined Ash	None	--
728	Yates	370	SI	Ash Pond 2	--	--	50	1103	22.06	Combined Ash	None	--
728	Yates	371	SI	B' Pond	--	--	30	298	9.933333333	Combined Ash	None	--
728	Yates	372	SI	Gypsum Solid Waste Facility	--	--	16	135	8.4375	FGD Waste	Composite	--
728	Yates	373	SI	Pond A	--	--	19	--	--	Combined Ash	None	Excluded
728	Yates	374	SI	Pond C	--	--	12	--	--	Combined Ash	None	Excluded
3809	Yorktown	1359	SI	Finger Ponds	37.21638889	-76.45777778	4.775	--	--	Combined Ash	Yes	Excluded
3809	Yorktown	988	LF	Ash Landfill	37.215975	-76.442493	48	991.7355372	20.66115702	Combined Ash	Clay	--

SIPC's Response to IEPA's Recommendation Regarding SIPC's Petition for Adjusted Standard from 35 Ill. Admin. Code Part 845 and a Finding of Inapplicability

EXHIBIT 47

DECLARATION OF KENNETH W. LISS

I, Kenneth W. Liss, first being duly sworn on oath, depose and state as follows:

1. I am the President of Andrews Engineering. My current responsibilities include managing the day to day business of the company. As a technical consultant, I provide a broad range of environmental expertise to industry, government, and individual clients for regulatory compliance, permitting, remediation and testimony. I currently serve as the Principal-in-Charge and/or Program Manager on a number of multi-year contracts with both private and public sector clients.

2. Prior to my current role, I served an Office Director at Andrews Engineering for nine years, from 1999 to May 2008 and Vice President of Operations from May 2008 to July 2014. Prior to working at Andrews Engineering, I worked for the Illinois Environmental Protection Agency ("IEPA") in the Bureau of Land Permitting Section. Initially my responsibilities included preparing permit conditions and compliance determinations for regulated facilities under various programs including the Resource Conservation and Recovery Act (RCRA) and Illinois solid waste and groundwater protection regulations. In 1990, I became the Acting Manager of the Groundwater Unit in the Permit Section of Bureau of Land. My responsibilities included managing a staff of 12 employees in support of various permit programs focusing on groundwater monitoring systems, hydrogeologic investigations and corrective action. In addition, I provided testimony for compliance/enforcement to legal counsel, permit and regulatory hearings, testimony in proceedings for various regulations at the Illinois Pollution Control Board and testimony for legislative actions before the Illinois House and Senate committees. I have a Bachelor of Science degree in Geology from Illinois State University, December 1983.

3. I am familiar with the operations of Southern Illinois Power Cooperative's ("SIPC") Marion Generating Station.

4. At the request of SIPC I have reviewed the requirements for a groundwater monitoring program under 35 Ill. Admin. Code, Part 845 Standards For The Disposal of Coal Combustion Residuals (CCR) In Surface Impoundments, Subpart F: Groundwater Monitoring and Corrective Action. Specifically, Section 845.610 (b)(1)(D) requires a groundwater monitoring program that includes a minimum of eight independent samples from each groundwater monitoring well.

5. The independent samples are collected to determine the existing groundwater quality at each monitoring well in the groundwater monitoring program and to establish the groundwater protection standards for the site. The well data are then statistically evaluated to determine whether or not the impoundment(s) are impacting groundwater. An impact to groundwater is defined as a confirmed exceedance of the established groundwater protection standard, which may ultimately

require corrective action.

6. Requiring the collection of eight independent samples within 180 days is insufficient to account for natural or man induced variations in groundwater concentrations that can be attributed to seasonal or temporal influence such as periods of increased or decreased precipitation, temperature, gradient changes and the physical properties of the geologic zones. Collecting groundwater data for purposes of establishing a baseline quality is usually completed over a period of 12 to 24 months to account for such variations. In fact, the regulations require seasonal and temporal variations to be identified in the site hydrogeologic characterization under Section 845.620 before establishing the groundwater monitoring network of wells. Limiting the collection of this important data set to two seasons increases the probability of false positives into the statistical analysis procedures. There are steps in the evaluation process to investigate false positives before corrective action, however there is a cost with each step due to additional sampling, further evaluations and the potential for adding additional monitoring wells in the area of the statistically determined impact. False positives can be persistent until the statistical data set is adjusted to account for these variations. Therefore, compressing the collection of the baseline groundwater data set is counterproductive to the evaluation process.

7. Accordingly, a period of at least 12 months and up to 24 months is needed to properly establish baseline quality of the groundwater. This is exacerbated by the fact that groundwater flow is known to be slow in portions of the site. Additionally, it would be prudent to build in 90 days (prior to the start of groundwater data collection) to review the design, construction and locations of the current monitoring system and install any new/additional wells that are necessary to meet the performance standard of Section 845.630 Groundwater Monitoring Systems. Groundwater sampling for establishing the groundwater protection standards could commence immediately after the initial 90 days and a minimum of eight independent samples from each groundwater monitoring well collected over a period of at least 12 months.

FURTHER, Declarant sayeth not.

Kenneth W. Liss