2023 Annual Inspection Report

Gavin Power, LLC

Bottom Ash Pond

Gavin Power Plant
Cheshire, Ohio

5 January 2024

Project No.: 0679646

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2023 Annual Inspection Report

Bottom Ash Pond
Gavin Power Plant
Cheshire, Ohio

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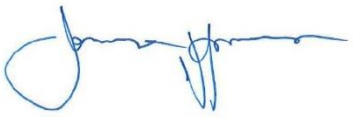 James Hemme, P.E., L.R.S., M.B.A. *Professional Engineer*		 Michael Eisen, P.E., M.B.A. *Professional Engineer*

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CONTENTS

List of Tables

List of Figures

Acronyms and Abbreviations

BAC	Bottom Ash Complex
BAP	Bottom Ash Pond
BMPs	Best Management Practices
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
ERM	ERM Consulting & Engineering, Inc.
MSL	Mean Sea Level
NPDES	National Pollutant Discharge Elimination System
PI	Plant's Information (System)
Plant	Gavin Power Plant
RWL	Residual Waste Landfill

1. INTRODUCTION

The Bottom Ash Pond (BAP) at the Gavin Power Plant (Plant) in Cheshire, Ohio is a surface impoundment subject to the Code of Federal Regulations (CFR) Title 40, Part 257, Subpart D, "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments," known as the Coal Combustion Residuals (CCR) Rule. The CCR Rule requires an annual inspection and reporting for surface impoundments.

This Annual Inspection Report for this impoundment has been prepared by ERM Consulting & Engineering, Inc. (ERM) to comply with the requirements of the CCR Rule, 40 CFR § 257.83(b).

1.1 Summary of Conditions of Annual Inspection

Mr. James Hemme, P.E., the certifying Professional Engineer and Mr. Michael Eisen, P.E., performed the annual inspection and prepared this annual inspection report. Mr. Richard Fuller, the Landfill Process Owner at Gavin Power, was the facility contact and provided support during the inspection process. Other members of the Gavin Power team also assisted with logistics and provided data for the completion of the inspection and report. In addition, per 40 CFR § 257.83(a), weekly and monthly inspections were completed on the CCR surface impoundments by Mr. Richard Fuller, the Landfill Process Owner at Gavin Power.

The inspection of the BAP was performed on 12 October 2023. Weather on that date consisted of partly overcast to clear skies, light wind, and temperatures ranging from 50 degrees Fahrenheit (°F) to 75°F. In the seven days prior to inspection, approximately 1.2 inches of precipitation was recorded at the rain gauge at the Plant.

1.2 Regulatory Cross-Reference Table

Per 40 CFR § 257.83(b)(1), annual inspections must be completed on CCR surface impoundments by a qualified Professional Engineer. James Hemme, P.E., the certifying engineer, maintains a professional engineering license in the State of Ohio. Table 1, below, is a regulatory cross-reference table that describes the inspection requirements and the respective locations in this report demonstrating compliance to each requirement.

Table 1: Federal Regulatory Requirement Cross-Reference Table

Federal Regulatory Requirement Summary	Location in the Annual Report
§ 257.83(b)—Annual inspections by a qualified professional engineer	Sections 1.1 and 1.2
§ 257.83(b)(1)(i)—A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information, previous periodic structural stability assessments, the results of inspections by a qualified person, and results of previous annual inspections)	Section 5
§ 257.83(b)(1)(ii))—A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures	Section 3; Appendix A
§ 257.83(b)(1)(iii)—A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation	Section 3; Appendix A
§ 257.83(b)(2)(i))—Any changes in geometry of the impounding structure since the previous annual inspection	Section 2.2
§ 257.83(b)(2)(ii)—The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	Section 4; Appendix C
§ 257.83(b)(2)(iii)—The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection	Table 2
§ 257.83(b)(2)(iv)—The storage capacity of the impounding structure at time of inspection	Table 2
§ 257.83(b)(2)(v)—The approximate volume of the impounded water and CCR at time of the inspection	Table 2
§ 257.83(b)(2)(vi)—Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR and appurtenant structures	Section 3; Appendix A
§ 257.83(b)(2)(vii)—Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection	Section 3; Appendix A

2. GAVIN PLANT INFORMATION

2.1 Facility Overview

The Gavin Power Plant is a coal-fired power station located in Gallia County, Ohio, immediately south of Cheshire, Ohio, and adjacent to State Route 7, as depicted on **Figure 1**. The Plant is also adjacent to the western shoreline of the Ohio River. Nearby towns include Addison, Ohio and Point Pleasant, West Virginia.

2.2 Bottom Ash Pond

The BAP is adjacent to Ohio State Route 7, immediately east of the Plant and west of the Ohio River. The Reclaim Pond abuts and is located to the northwest of the Bottom Ash Pond. The two ponds comprise the Bottom Ash Complex (BAC). The Reclaim Pond was not designed to retain an accumulation of CCR and does not treat, store or dispose of CCR; thus, the Reclaim Pond is not considered a CCR Surface Impoundment under the CCR Rule. The location of the Bottom Ash Pond is depicted on **Figure 1**, and the general layout of the BAP is presented on **Figure 2**. Photographs of the Bottom Ash Pond at the time of the annual inspection are provided in **Appendix A**.

The BAP and the Reclaim Pond consist of continuous earthen embankments that surround the BAC on all four boundaries. The BAP and Reclaim Pond are separated by internal pond embankments and is traversed by a gravel access road. Gavin plans to achieve closure of the BAP through removal of residual material and disposal in Gavin's lined residual waste landfill. The placement of bottom ash in the BAP ceased in 2022. The BAP continued to receive miscellaneous Plant wastewaters including coal-pile runoff, cooling-tower blowdown, pyrites, and various Plant sump wastewaters until April 7, 2023. Dewatering activities of the BAP commenced the week of March 20, 2023. The BAP last received influent wastewater on April 7, 2023, at which time the flow was entirely diverted directly into the Reclaim Pond. Dewatering of the BAP continued through May 31, 2023 at which time the BAP was considered drained for ash removal. Within the Reclaim Pond, stored water is pumped to the Plant for reuse or discharged to the Ohio River via an overflow structure, in conformance with the Plant National Pollutant Discharge Elimination System (NPDES) permit (Permit # 0IB00006*PD).

At the time of the inspection, all visible bottom ash had been removed from approximately two thirds of the BAP. Where ash had been removed, the BAP floor appeared to be native clay soils. The BAP was completely dewatered and the interior side slopes of the BAP embankments were being regraded as the bottom ash was removed. ERM did not observe changes in the geometry of the top of the BAP embankment or the outward facing slopes of the embankment from 2022. **Table 2** provides current operational and geometry information for the BAP, as required by 40 CFR § 257.83(b)(2)(iii), (iv), and (v).

Table 2: 2023 Operation Information for the Bottom Ash Pond

Parameter	Value
Total Surface Area[1]	49.1 acres
Height of Perimeter Dikes[2]	22 to 36 feet
Minimum Solids Elevation[3]	549.7 feet (Mean Sea Level Datum [MSL])
Maximum Solids Elevation[3]	585.03 feet MSL
Storage Capacity[4]	1346 acre-feet
Elevation of Bottom Ash Pond Water and Water Depth[5]	Most recent- prior to dewatering (3/16/23): +575.22 feet MSL (18.22 feet deep); Minimum- prior to dewatering: +575.22 feet MSL (18.22 feet deep); Maximum: +575.68 feet MSL (18.68 feet deep)
Approximate Volume of Impounded Water[6]	1,346 acre-feet
Approximate Volume of CCR[7]	0 acre-feet

[1] Based on a 2019 study, total surface area was calculated at 49.1 acres using available contour data in AutoCAD Civil 3D 2018.

[2] Determined by the elevation distance from the pond embankment's crest to the exterior toe of slope and surrounding land surface. Height has not changed since 2021 annual inspection.

[3] Consistent with previous years, the values reported above are provided through cone penetrometer test (CPT) borings conducted between March 2020 and June 2020 across the interior of the BAP to extend through the ash/sediment materials and into the surface of the underlying clayey soils that form the base of the BAP. The minimum solids elevation refers to the bottom of the ash/sediment materials while the maximum solids elevation refers to the top of the ash/sediment materials within the BAP. Referenced in 2021 Bottom Ash Pond Investigation Report, dated 13 July 2021.

[4] The total storage capacity was estimated based on a maximum storage elevation of +586 feet MSL+ and available average surface area of about 49.1 acres in the Bottom Ash Pond.

[5] Prior to dewatering, the elevation of the pond bottom was approximately +575 to +576 feet MSL based on the Bottom Ash Pond inspections.

[6] The approximate volume of impounded water for the Bottom Ash Pond was estimated based on the depth of water at the time of inspection by Mr. Richard Fuller, the Landfill Process Owner at Gavin Power (prior to dewatering), and an estimated volume based on solid surface contours in AutoCAD.

[7] The approximate volume of CCR is as of December 16, 2023, and was provided by Gavin personnel.

3. BOTTOM ASH POND VISUAL INSPECTION

The 2023 annual visual inspection conducted for the BAP is summarized below. All referenced photographs are in **Appendix A**; **Figure 3** shows the approximate locations where they were taken. Qualitative terms used to describe the inspection are summarized in **Appendix B.**

The annual inspection report discusses each embankment section of the BAP (i.e., west, south, east, and north embankments) separately. Although it is not regulated under the CCR Rule, this report also describes the inspection of the Reclaim Pond since its structural integrity is relevant to the BAP. There were no appearances of actual or potential structural weakness in any component of the BAP during the 2023 inspection. In addition, there were no existing conditions[8] that were visually observed to be disrupting or that had the potential to disrupt the operation and safety of the BAP and appurtenant structures.

As a part of the active BAP closure efforts, ERM observed bottom ash removal from the BAP via excavation through the use of large, high capacity and/or long reach excavators. There was no standing water observed within the BAP or being retained against the embankment except for isolated shallow (<6") puddles/pools within the BAP floor (Photograph 28). Numerous trucks were observed coming into the BAP and being loaded with bottom ash for transfer and disposal into the facility's nearby onsite Residual Waste Landfill (RWL). This cycle of "dig and haul" occurred for the entire duration of the inspection. The bottom ash visually appeared to be removed from approximately two thirds of the BAP surface area.

Non CCR process water is currently being discharged directly into the Reclaim Pond through use of diversion piping (Photograph 34). Within the Reclaim Pond a series of floating booms/turbidity curtains were observed to increase the flow path and retention time within the Reclaim Pond (Photograph 35).

To assist with dewatering of the BAP, approximately 158 million gallons of water were removed from the BAP and put through a temporary supplemental treatment system prior to being pumped into the Reclaim Pond and final discharge.

3.1 Western Embankment Section

The western embankment section (including crest, slopes, and toes) was in satisfactory condition (i.e., well vegetated and in a stable condition) based on the visual inspection. There was no observable settlement, rutting, significant erosion, or misalignment identified (Photographs 1 through 9). The following is a summary of the inspection observations:

1. The western exterior embankment contained no indications of slope instability and was well vegetated (Photographs 1 through 4 and 6 through 9). Previously identified isolated hummocky areas on the exterior slope have not shown any signs of movement or instability from the previous inspections.
2. The stormwater pipe culvert observed toward the end of the ditch in the southwestern corner appeared to be in good working condition and free of debris. Only a slight deformation (bend) at the top of the inlet pipe was observed in the SW corner culvert, which is not affecting its operation (Photograph 5).

[8] For example, significant and developing erosion gullies, soil movement that could impact slope stability, or apparent seeps along exterior embankment.

3.2 Southern Embankment Section

The southern embankment section was in satisfactory condition (i.e., mostly vegetated and in stable condition) during the annual inspection (Photographs 10 through 18). The following is a summary of this visual inspection:

1. The exterior slope exhibited no visual indications of significant misalignment, erosion, rutting or settlement. Slope vegetation was overgrown at the time of inspection. Effective revegetation of some sparse cover areas identified in the 2022 inspection was observed in 2023 (Photographs 10 and 18). A few minor areas of sparse vegetation coverage remain (Photographs 11 and 12).
2. The interior embankment slope appeared stable (Photographs 13 through 17).
3. The southern embankment access road was found in stable condition and remains well maintained (Photograph 16).

3.3 Eastern Embankment Section

The eastern embankment section was in satisfactory condition (i.e., stable) with a few areas along the embankment of sparse vegetation. No visible indications of rutting, misalignment, or recent settlement were noted (Photographs 19 through 24). The following is a summary of this visual inspection:

1. The exterior slope appeared stable, and the majority of the slope had well-established vegetative growth with isolated areas of sparse vegetation coverage (Photographs 19 through 24). Previously identified small crescent shaped scarp areas were observed near the toe. These areas continue to be well vegetated and show no sign of seepage, instability or movement (Photographs 23 and 24).
2. Previously identified isolated areas of sparse vegetation near the crest of this slope remain. No significant erosion or sedimentation issues were observed.
3. The eastern embankment access road was found in stable condition and remains well maintained (Photograph 24).

3.4 Northern Embankment Section

The northern embankment section was in satisfactory condition (i.e., stable) with several spots of sparse vegetation and some minor erosion rills. No visible indications of rutting or settling were noted. The terrain was slightly uneven along the exterior crest with occasional bare spots (Photographs 25 through 35). The following is a summary of the visual inspection:

1. The condition of the exterior slope appeared stable and generally well vegetated with some isolated areas of sparse vegetation (Photographs 25, 26, and 32). This embankment in the vicinity of the discharge pipe had previously documented settlement repairs along the toe of the exterior slope and exhibited no further indication of ground settlement. No evidence of seeps along the toe of the embankment were observed.
2. A riser pipe on the northern exterior slope with a heavy-steel lid was reported to be a valve or access cover. This was found to be rusted and broken (Photograph 27). This riser pipe should be confirmed regarding use and repaired as required.
3. Bottom ash sluicing method of CCR removal no longer occurs at the Gavin facility and this former CCR source has been eliminated from being deposited into the BAP to facilitate the BAP closure. Several sources of non CCR process water remain and are generated from the facility operations. The non-CCR process water is intercepted at the inflow piping, prior to the BAP, and temporarily rerouted directly to the Reclaim Pond through a HDPE diversion pipe (Photograph 34). The diversion pipe appeared to be functioning in a satisfactory manner.

4. The northern embankment access road was found to be in stable condition and remains well maintained (Photograph 29).
5. The exterior slope is stable and well vegetated along the conveyor (Photograph 32).

3.5 Reclaim Pond

The Reclaim Pond internal embankments (Photograph 33) were found to be in satisfactory condition. No visible indications of settlement, instability or erosion were apparent. The crest and slopes along the interior were vegetated (with only minor isolated bare spots) and the toe was armored with riprap. The riprap-protected areas appeared to be in stable condition (Photographs 30, 33, and 35).

Supplemental best management practices consisting of floating booms/turbidity curtains, chemical addition, flow monitoring, and a polishing system have been installed at the Reclaim Pond to assist with the dewatering of the BAP and for processing the non-CCR process water streams from the facility. A pump was installed in the northeast section of the BAP and then water went through a treatment system and to the reclaim pond. The former concrete riser structure in the BAP has been demolished and the piped connection from the BAP to the Reclaim Pond has been plugged.

4. ASSESSMENT OF RECENT INSTRUMENTATION DATA

4.1 Bottom Ash Pond

Two piezometers, labeled BAP-1, and BAP-2, are located at the BAC as indicated on **Figure 2**. Water level readings were obtained from piezometers BAP-1 and BAP-2, and from inside the BAP itself. BAP-1 is near the drainage ditch along the western dike and BAP-2 is near the toe of the exterior slope of the southern dike. A plot of the monthly recorded readings from these piezometers and the pond surface is presented in **Appendix C**, in accordance with 40 CFR § 257.83(b)(2)(ii). From January 2023 through April 2023, groundwater levels in BAP-1 and BAP-2 exhibited average elevations of +541.34 and +540.60 feet MSL, with standard deviations of 0.3 and 0.1 feet, respectively. Also, the maximum reading for BAP-1 was +541.62 MSL while the maximum reading for BAP-2 was +540.69 MSL.

The surface water levels in the BAP, collected by the PIant, had average elevations of +570.03 feet MSL, with a standard deviation of 5.7 feet. Please note that this timeframe is from January 2023 through May 2023. Dewatering activities started the week of March 20, 2023 and pool levels in the BAP were recorded through April 13, 2023 at which time water levels fell below the gage level. Pool levels in the BAP were estimated through May 31, 2023 at which time the BAP was considered dewatered for ash removal.

5. REVIEW OF CCR OPERATING RECORD DOCUMENTS AND PREVIOUS INSPECTION ITEMS

For this inspection report, the following documents were reviewed regarding the status and condition of the Bottom Ash Pond, in accordance with the requirements of 40 CFR § 257.83(b)(1)(i):

- 7-day inspection reports for the BAP for 2023.
- Monthly inspection reports for the BAP, which also include records of recent instrumentation data for 2023.
- The 2022 Annual Inspection Report, Bottom Ash Pond dated 06 January 2023.
- Other documents that contain information on the design, construction, operation, and condition of the CCR unit, including the Closure Plans, previous instrument data before 2023, and the 2015 through 2022 Annual Inspection Reports.

Based on the review of the available data related to this inspection, there were no identified indications of potential structural weakness, slope instability, drainage or seepage issues, or other adverse conditions that would impact the stability and operation of this CCR unit.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 2022 Annual Inspection Follow-Up

A review of photographs and repair items from the 2022 Annual Inspection Report included the following brief summary of 2022 recommendations for the BAP: monitor embankment slopes where subsidence or sloughing might occur, inspect the toe of slopes for potential seepage, reseed indicated bare spots along slopes to re-establish vegetation, regularly trim embankment slope vegetation, repair forming rills and gullies, replace the observed rusted and broken riser pipe, and continue weekly inspections BMPs.

Based on the 2023 annual inspection and a review of weekly and monthly inspection reports, the vast majority of the above-identified repair items from the 2022 annual inspection of the BAP have been addressed and recommendations followed with the exception of repair of the damaged riser pipe and spot seeding as discussed in items 2 and 3 of Section 6.2.1. Reseeding of a portion of the bare ground areas identified last year was documented during this year's inspection. Areas of previous years' maintenance have been monitored and were observed to be stable during this year's inspection.

6.2 2023 Recommendations

6.2.1 Bottom Ash Pond

It should be noted that the recommended maintenance identified for the BAP this year is considered minor and time for execution is heavily reliant upon the removal of the remaining bottom ash material from the BAP and a final determination of how the BAP embankment will be utilized in the final BAP closure. Some activities, such as reseeding, may not be necessary if further disturbance on the crest or exterior of the embankment occurs.

ERM recommends the following for the BAP based on the 2023 annual inspection:

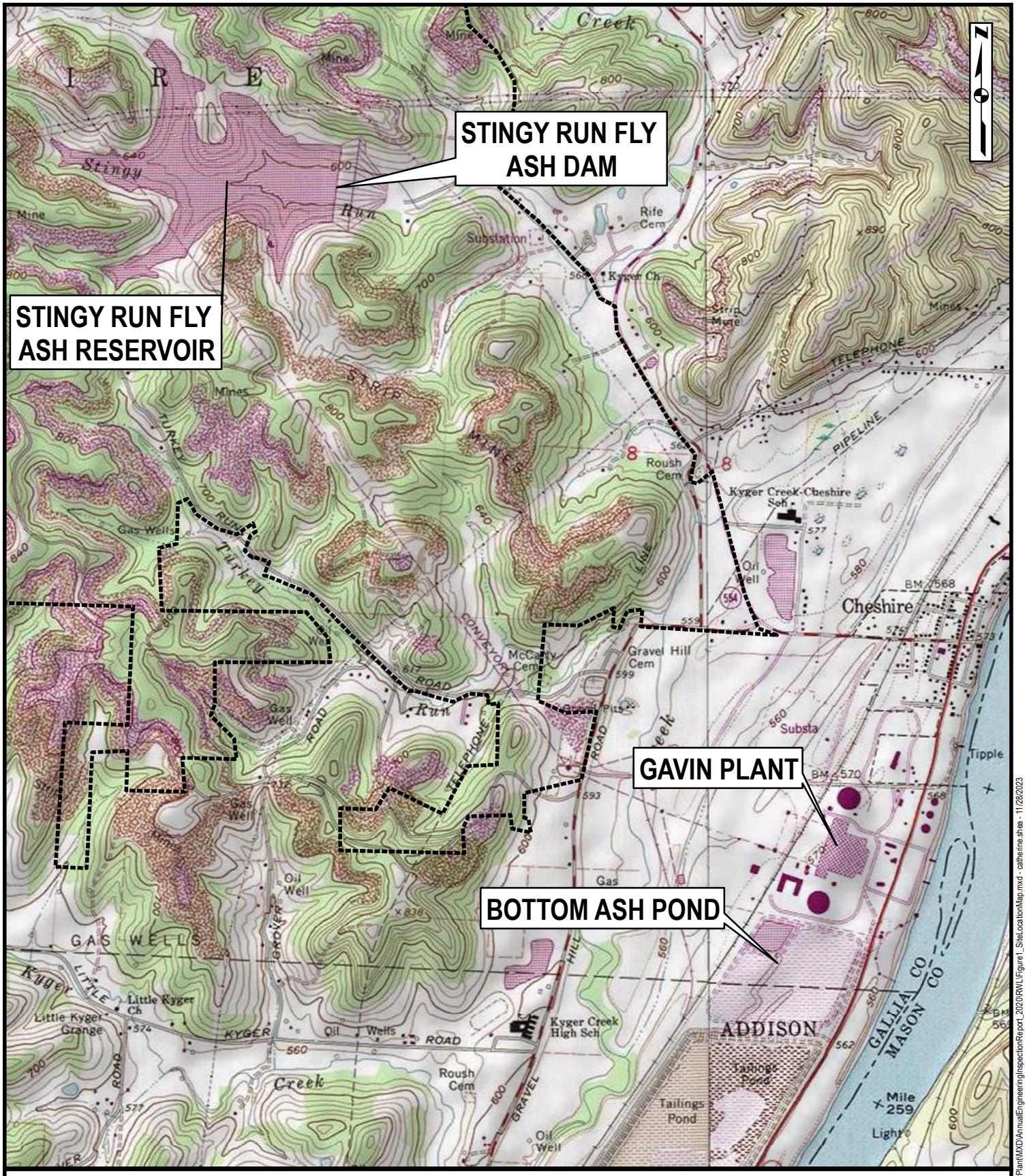
1. Continue to monitor locations along embankment slopes where hummocky or previous scarps were identified in previous inspections both during and after construction. If the unit is converted into a process water pond, continue to inspect the toe of all slopes for potential seepage.
2. The riser pipe on the northern exterior slope was found to be rusted and broken (Photograph 27). If the unit is converted into a process water pond, this riser pipe should be replaced.
3. Reseed identified localized bare spots along the slopes to re-establish vegetation. Revegetation and potential application of nutrients or pH adjustment may be employed as necessary to aid in addressing localized areas where bare ground spots were observed. Coordinate this maintenance item with potential for disturbance of the embankment in the upcoming year.
4. Ensure regular trimming of embankment slope vegetation. Particular attention should be given to tall woody vegetation growth, which should continue to be mowed.
5. The weekly and monthly inspections continue to point out any areas of the BAP that require attention, which in turn have been documented and addressed in a timely fashion. It is recommended that the Plant continue these Best Management Practices.

6.3 CONCLUSIONS

Overall, the 2023 annual inspection indicated that the BAP CCR unit is in satisfactory operating condition and is stable. ERM identified several minor recommendations regarding repair and maintenance at the CCR unit, as listed above in Section 6.2.1. Implementation of the recommendations will depend on resolution of how the embankment will be treated as part of the final closure, including whether the unit is converted into a process water pond.

The weekly and monthly inspections have been effective at identifying and documenting areas requiring attention, and the Plant should continue the practice of promptly implementing the required maintenance. Recommendations for repair, while not immediately essential to the stability or the safe operation of the BAP, should be made as part of ongoing maintenance activities throughout 2024 in coordination with the final BAP closure activities.

FIGURES



SOURCE
USGS scanned topographic quad maps provided by National Geographic Society (© 2023).

Figure 1: Site Location Map
Gavin Power LLC
Cheshire, Ohio

ERM

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- Active Piezometer Location

NOTES:
1. Locations are approximate
2. Aerial Imagery: USDA NAIP Satellite Imagery, taken on 10/05/2022

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Figure 2: Bottom Ash Complex Site Layout
Gavin Power LLC
Cheshire, Ohio

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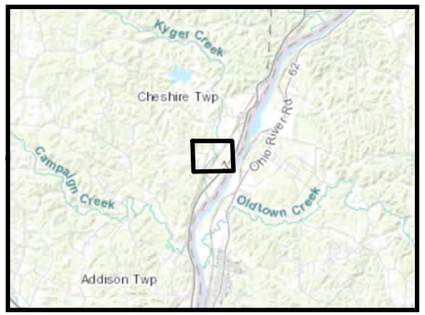

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- # Photograph Location
- Active Piezometer Location

NOTES:

1. Locations are approximate
2. Aerial Imagery: USDA NAIP Satellite Imagery, taken on 10/05/2022

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Figure 3: Visual Inspection Map
Bottom Ash Complex
Reservoir Site Layout
Gavin Power LLC
Cheshire, Ohio

ERM

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APPENDIX A ANNUAL INSPECTION PHOTOGRAPHS

Bottom Ash Complex

(Photographs taken during 2023 CCR Inspection on 10/12/2023)

Photograph #1 View of western BAP embankment outside slope, from turnout for Reclaim Pond embankment. Slope is stable and well vegetated with tall grass at the time of inspection (looking south).	
Photograph #2 Drainage ditch along exterior base of western embankment, near west side of the Reclaim Pond. Slope is stable and well vegetated (looking north).	
Photograph #3 Western embankment exterior slope and bottom ditch line toward south end of embankment. Slope is stable and well vegetated (looking north).	

Photograph #4 View of exterior southwest corner of BAP. Slope is stable and well vegetated (looking south).	
Photograph #5 View of drainage ditch culvert at SW corner of BAP. Slight top bend observed at culvert inlet, not affecting culvert's function (looking southwest).	
Photograph #6 Western embankment exterior slope and bottom ditch line of embankment. Slope is stable and well vegetated (looking east).	

Photograph #7 Western embankment exterior slope and bottom ditch line of embankment. Slope is stable and well vegetated (looking south).	
Photograph #8 Western embankment exterior slope and bottom ditch line of embankment. Slope is stable and well vegetated (looking south).	

Photograph #9 Western embankment exterior slope and bottom ditch line of embankment. Slope is stable and well vegetated (looking north).	
Photograph #10 View of southern embankment exterior slope from SW corner of BAP. Slope is stable and well vegetated (looking east). Gravel road leading to groundwater wells is well maintained. Wells are visible and stable.	

Photograph #11 View down exterior slope of southern embankment. Slope appears stable and is densely vegetated with a few minor areas of sparse cover (looking south).	
Photograph #12 View down exterior embankment slope at SE corner of BAP. Slope is stable and well vegetated with minor areas of sparse cover (looking southwest).	

Photograph #13 View of interior southern embankment slope from SW corner of BAP. Slope is stable and bottom ash is about two thirds removed (looking west).	
Photograph #14 View of Bottom Ash Pond (BAP) from SW corner. Slope is stable and bottom ash is about two thirds removed (looking northeast).	

Photograph #15 View of interior southern embankment slope from SW corner of BAP. Slope is stable and bottom ash is about two thirds removed (looking west).	
Photograph #16 View of interior southern embankment slope from SW corner of BAP. Slope is stable and bottom ash is being removed in this area (looking west).	
Photograph #17 View of interior southern embankment slope from SE corner of BAP. Slope is stable and bottom ash is being removed in this area (looking north).	

Photograph #18	
View down exterior slope of southern embankment. Slope appears stable and is well vegetated (looking north).	

Bottom Ash Pond Complex

Photograph #19 View of top exterior eastern embankment slope and access road near SE corner of BAP. Slope is stable and well vegetated (looking northwest).	
Photograph #20 View of top exterior eastern embankment slope and BAP effluent pipelines and mid slope access road. Slope is stable and well vegetated with some areas of sparse cover (looking northwest).	
Photograph #21 View of pipeline along eastern embankment exterior slope with some areas of sparse vegetation cover (looking northwest).	

Photograph #22 View of pipeline along eastern embankment exterior slope with some areas of sparse vegetation cover (looking northwest).	
Photograph #23 View of exterior eastern embankment slope, at approximate midpoint of BAP. Previously observed crescent scarp shape is visible. No soil movement or signs of seepage were visible, consistent with previous years' inspections. Area appears stable and well vegetated (looking east). Ohio Route 7 visible on top half of image outside fence line.	
Photograph #24 View of exterior eastern embankment slope, at approximate midpoint of BAP. Previously observed crescent scarp shape is visible. No soil movement or signs of seepage were visible, consistent with previous years' inspections. Area appears stable and well vegetated (looking north). Ohio Route 7 visible on right side of image outside fence line.	

Photograph #25 View of exterior northern embankment slope from NE corner of BAP. Slope is stable and well vegetated (looking south).	
Photograph #26 View of exterior northern embankment slope near center of BAP. Slope is stable and well vegetated with some areas of sparse cover below coal conveyor along the top (looking south).	
Photograph #27 Corrugated steel riser in exterior slope of northern embankment of BAP. Appears to have been damaged by mowing equipment.	

Photograph #28 View from the northern embankment. Minor woody stemmed vegetation visible (looking south).	
Photograph #29 View of interior northern embankment slope. Slope appears stable and vegetated (looking east). Coal conveyor on left side of the image.	
Photograph #30 View of Reclaim Pond. Embankment slopes are stable, well vegetated, and armored at toe level (looking north).	

Photograph #31 View of interior embankment slope. Slope appears stable and vegetated (looking south).	
Photograph #32 View of exterior northern embankment slope from NW corner of BAP by conveyor. Slope is stable and well vegetated (looking south).	
Photograph #33 View of Reclaim Pond. Embankment slopes are stable, well vegetated, and armored at toe level (looking west).	

Photograph #34 View from interior northern embankment slope showing non CCR process water being diverted from the BAP directly into the Reclaim Pond through the use of diversion piping (looking southwest).	
Photograph #35 View of Reclaim Pond. A series of floating booms/turbidity curtains were observed to increase the flow path and retention time within the Reclaim Pond (looking northeast).	

APPENDIX B QUALITATIVE INSPECTION TERMS

SUMMARY OF QUALITATIVE VISUAL INSPECTION TERMS

The terms described below are used to describe the overall condition and/or appearance of an observed embankment, structure, activity, or item. These terms are intended to give an overall qualitative judgment of the particular item. Please note, some of the terms described below were not used in this year's inspection, but are included as a comparative reference.

Satisfactory: A condition or activity that meets what would be minimally anticipated or expected from a stability, maintenance, or design viewpoint.

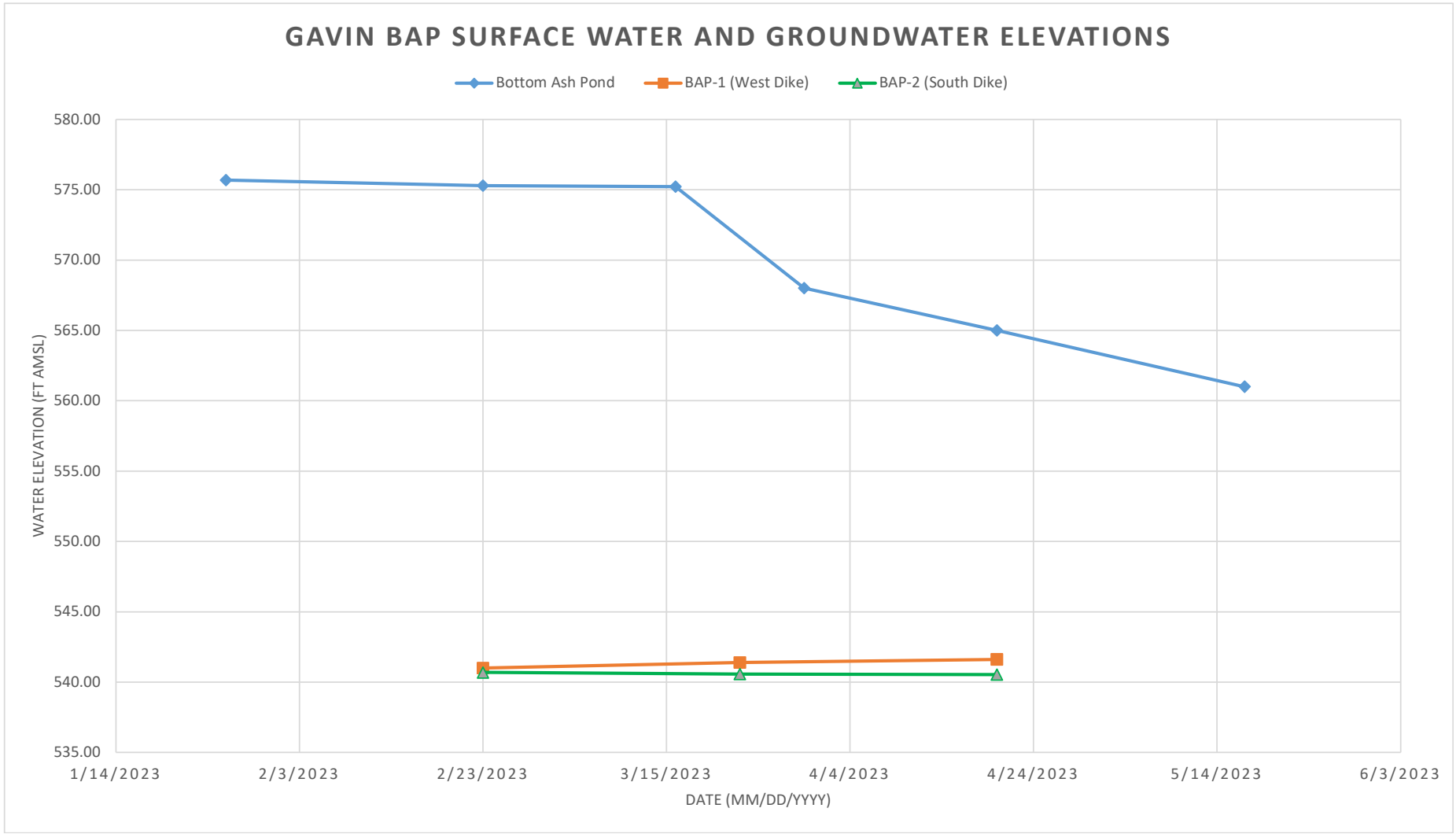
Poor: A condition or activity that does not meet what would be minimally anticipated or expected from a stability, maintenance, or design viewport. If a rating of "poor" is assigned, then corrective action is required in as timely a manner as possible.

Minor: A reference to an item or activity where the current maintenance condition is below what is normally desired, but does not cause concern from a stability of safety viewpoint. Generally, these conditions would be identified and could be remedied through the normal maintenance process.

Significant: A reference to an item or activity which would impact the stability or daily operating conditions of the CCR unit. Generally, significant features develop over time and would likely be a result of maintenance not occurring when minor deficiencies were first noted. If left unchecked, such conditions could eventually be a concern for the stability and safety of the CCR unit.

Excessive: A reference to an item or activity that is much worse than what is normal or desired and is of immediate concern to the stability or safety of the CCR unit. Such a condition may also impact the ability of the inspector to properly evaluate the particular item or area.

APPENDIX C RECENT INSTRUMENTATION DATA


GAVIN BAP SURFACE WATER AND GROUNDWATER ELEVATIONS
Bottom Ash Pond
BAP-1 (West Dike)
BAP-2 (South Dike)
580.00
575.00
570.00
565.00
560.00
555.00
550.00
545.00
540.00
535.00
WATER ELEVATION (FT AMSL)
1/14/2023
2/3/2023
2/23/2023
3/15/2023
4/4/2023
4/24/2023
5/14/2023
6/3/2023
DATE (MM/DD/YYYY)

APPENDIX D PROFESSIONAL ENGINEER CERTIFICATION

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I or an agent under my review has prepared this Annual Inspection Report for the Bottom Ash Pond, and am familiar with the provisions of the final rule to regulate the disposal of coal combustion residuals (CCR). I attest that this report has been prepared in accordance with good engineering practices and meets the intent of 40 CFR 257.84. To the best of my knowledge, the information contained in this Report is true, complete, and accurate.

_____

James A. Hemme, P.E.

Date: January 5, 2024

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