2024 Annual Inspection Report

Bottom Ash Pond

PREPARED FOR
Gavin Power, LLC

DATE
10 January 2025

REFERENCE
0720782

SIGNATURE PAGE

2024 Annual Inspection Report

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
BAP	Bottom Ash Pond
BMPs	Best Management Practices
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
ERM	Environmental Resources Management, Inc.
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 Environmental Resources Management, 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. Tanner McCallister, E.I.T., 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 annual inspection of the BAP was performed on 28 October 2024. Weather on that date consisted of partly overcast to clear skies, light wind, and temperatures ranging from 49 degrees Fahrenheit to 68 degrees Fahrenheit. In the seven days prior to inspection, approximately 0.2 inches of precipitation was reported by the local NOAA station located in Gallipolis, OH.

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 with 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 4
§ 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	N/A
§ 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	N/A
§ 257.83(b)(2)(iv)—The storage capacity of the impounding structure at time of inspection	N/A
§ 257.83(b)(2)(v)—The approximate volume of the impounded water and CCR at time of the inspection	N/A
§ 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 south of the Plant and west of the Ohio River. The Reclaim Pond abuts and is located to the northwest of the BAP. The two ponds comprise the Bottom Ash Complex. 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 BAP is depicted on **Figure 1**, and the general layout of the BAP is presented on **Figure 2**. Photographs of the BAP 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 Bottom Ash Complex on all four boundaries. The BAP and Reclaim Pond are separated by an internal pond embankment that is traversed by a gravel access road. Gavin plans to achieve closure of the BAP through removal of residual CCR material and subsequent 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. Subsequent excavation of the residual materials within the BAP continued through December 16, 2023 when removal of CCR material was completed.

Within the Reclaim Pond, stored water is pumped to the Plant for reuse or discharged to the Ohio River via a permitted outfall, in conformance with the Plant National Pollutant Discharge Elimination System permit (Permit # 0IB00006*PD). The facility is supplementing water treatment coming into the Reclaim Pond with a modular water treatment system operated by Gavin's contractor, MPW Industrial Services. This supplemental treatment has been maintained throughout 2024.

At the time of the 2024 inspection, CCR had been removed from the BAP. The BAP floor appeared to be native clay soils and the embankment side slopes had been graded to a consistent slope during residual material removal. The BAP was dewatered with the exception of accumulated precipitation in a low area located on the western portion of the BAP and the water depth was estimated to be 1 to 2 feet deep.

Consistent shallow rill erosion was observed around the inside perimeter of the embankment (Photograph 1). Eroded soil from the side slope rill erosion is captured within the dewatered BAP

and is not leaving the location. Interior slopes appeared stable and no significant changes in geometry indicative of slope movement were observed.

The BAP is out of operation and no receipt of CCR or non-CCR waste streams occurred in 2024. The volume of water from precipitation is considered De Minimis and is routinely removed with a portable pump and put through the treatment process in the Reclaim Pond prior to discharge. Based on ERM's observations and information provided by Gavin, the volume of sluice water or similar wastewater streams and CCR material in the BAP in 2024 is zero (0) acre-feet.

3. BOTTOM ASH POND VISUAL INSPECTION

The 2024 annual visual inspection conducted for the BAP is summarized below. 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 significant appearances of actual or potential structural weakness in any component of the BAP during the 2024 inspection. In addition, there were no existing conditions[1] that were visually observed to be disrupting or that had the reasonable potential to disrupt the safety of the BAP and appurtenant structures.

Bottom ash removal from the BAP had been completed prior to ERM's 2024 inspection. The bottom ash visually appeared to be removed from the BAP surface area. There was minimal standing water observed within the western portion of the BAP as a result of precipitation that has fallen within the limits of the excavated BAP. This accumulated water was estimated to be 1 to 2 feet deep and was within a limited excavated area near the former riser structure. This water was not being retained against the exterior BAP embankment at any observed location, nor is any smaller accumulation of standing water (Photographs 2-5).

Non CCR process water is being intercepted, collected and routed into the Reclaim Pond system through use of high-density polyethylene diversion piping (Photograph 6). Within the Reclaim Pond a series of floating booms/turbidity curtains were observed to increase the flow path and retention time within the feature (Photograph 7). Modular water treatment equipment is staged along the south and east embankment of the Reclaim Pond and is used to pre-treat influent water prior to release into the Reclaim Pond and eventual discharge to the Ohio River.

3.1 WESTERN EMBANKMENT SECTION

The western embankment section (including crest, slope, and toe) was in satisfactory condition (i.e., well vegetated and in a mostly stable condition) based on the visual inspection. There was no observable settlement, rutting, or significant erosion observed (Photographs 8 through 14). The beginning of a shallow tension crack and movement of surface soils was observed on the exterior vegetated slope (Photograph 15). The following is a summary of the inspection observations:

1. No evidence of seeps along the toe of the embankment were observed.

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

2. The western exterior embankment was well vegetated (Photographs 8 through 11 and 13 through 14). Previously identified isolated hummocky areas on the exterior slope have not shown any signs of further movement or instability from the previous inspections. An isolated tension crack ranging in width from 1 to 3 inches was observed approximately a quarter of the slope distance from the crest. An exact length of crack could not be determined given the thick vegetation but is estimated at approximately 30 feet in length running roughly parallel with the land surface contour. This movement was noted by the facility in their 7-day inspections and has been identified for an upcoming repair. This portion of the embankment is not retaining water and is sufficiently distant from the crest roadway that concern for normal access and monitoring or impact to the facility is considered minimal. This situation will require repair to the required compaction, and grading to the appropriate line and slope prior to returning the embankment to water retaining operation.
3. The stormwater pipe culvert observed under the monitoring well access 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 16).
4. A stormwater pipe culvert at the toe of the western embankment that crosses the western access road would benefit from placement of outlet protection stone (Photograph 17). Stormwater flow has created a minor depression at the outlet area.

3.2 SOUTHERN EMBANKMENT SECTION

The southern embankment section was in satisfactory condition (i.e., well vegetated and in stable condition) during the annual inspection (Photographs 18 through 22, photograph 2, and photograph 5). The following is a summary of this visual inspection:

1. No evidence of seeps along the toe of the embankment were observed.
2. The exterior slope exhibited no visual indications of significant misalignment, erosion, rutting or settlement and was well vegetated. Sparse vegetation areas observed in 2023 were well vegetated during this inspection (Photographs 18 through 22).
3. The interior embankment slope appeared stable (Photographs 2 and 5). In approximately 3 limited locations, the shallow rill erosion has progressed into deeper erosion features approximately 8 to 12 inches deep. These deeper features appear to be related to preferential runoff pathways from the crest access road. Monitoring of the progression of these deeper features is recommended and the addition of stone into the headcut of the features to slow runoff velocities may eventually be necessary to prevent progression of erosion into the roadway.
4. The southern embankment access road was found in stable condition and remains well maintained (Photographs 21 and 22).

3.3 EASTERN EMBANKMENT SECTION

The eastern embankment section was in satisfactory condition (i.e., mostly vegetated) during the annual inspection. (Photographs 23 through 28). The following is a summary of this visual inspection:

1. No evidence of seeps along the toe of the embankment were observed.
2. The exterior slope appeared stable, and the majority of the slope had well-established vegetative growth with isolated areas of sparse vegetation coverage (Photographs 23 through 26). 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 (Photograph 26).
3. Previously identified isolated areas of sparse vegetation near the crest of the eastern slope remain. Granular materials that had potentially migrated from the crest roadway were observed on the outside face of the slope near the crest. This material appears to be eroding from the shoulders as stormwater flows off the surface of the crest roadway. This material was visible at multiple locations along the exterior eastern embankment with eroded material being carried a few inches to 15 feet down the face of the slope (Photographs 27 and 28).
4. The eastern embankment access road was found in stable condition and remains well maintained (Photographs 24 and 25).
5. Former bottom ash sluice piping has been rendered inactive and partially demolished, thus no longer enters the BAP. Former carrier pipe remains on the exterior face of the embankment. Granular material was observed between sections of this piping and should be considered for removal when the remainder of the bottom ash sluice pipe is either removed or repurposed.

3.4 NORTHERN EMBANKMENT SECTION

The northern embankment section was in satisfactory condition (i.e., stable condition) with a few minor areas of sparse vegetation. No visible indications of rutting or settling were noted along the slope. The toe of the northern embankment was recently disturbed due to a recent construction project (Photographs 29 through 37 and photograph 6). The following is a summary of the visual inspection:

1. No evidence of seeps along the toe of the embankment were observed.
2. The condition of the exterior slope appeared stable and generally well vegetated. A new water pipeline to the coal yard has been installed parallel to the toe of the northern embankment along its entire length (Photographs 29 through 31). This linear area was observed in an unvegetated condition with temporary best management practices (BMPs; i.e., silt fence)

installed at several locations on the downgradient edge of disturbance. If this area will require no additional grading it should be seeded and mulched and temporary BMPs maintained until a 70% level of vegetation on the disturbed area is obtained.

3. Minor rutting at the toe of the northeast corner of the embankment under the coal conveyor was observed. This was determined to be the result of operation of a sky lift for painting of the enclosed conveyor tube section. This area should be smoothed and seeded and graded when painting is complete.
4. A corrugated metal riser pipe on the northern exterior slope with a heavy-steel lid was reported to be a valve or access cover. This is in the same condition as noted in previous reports being rusted and damaged (Photograph 32). This riser pipe should be confirmed regarding use and repaired as required.
5. The Gavin facility ceased placement of CCR in the BAP in 2022 to facilitate the BAP closure. Discharges of non-CCR waste streams into the BAP ceased in April 2023. Non-CCR process water is generated from facility operations, piped into a collection structure located on the northern embankment of the BAP, and routed through a high-density polyethylene diversion pipe (Photographs 34 and 35) directly to the ancillary modular treatment system and then to the Reclaim Pond. The diversion pipe appeared to be functioning in a satisfactory manner and capturing all observed inflow sources.
6. The northern embankment access road was found to be in stable condition and remains well maintained (Photograph 37).
7. The exterior slope is stable and well vegetated along the conveyor (Photograph 31). Coal fines have accumulated directly below the conveyor towards the crest of the embankment.

3.5 RECLAIM POND

The Reclaim Pond internal embankments (Photograph 38) 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 7 and 38).

Supplemental BMPs consisting of a modular pre-treatment system, floating booms/turbidity curtains, chemical addition, flow monitoring, and a polishing system have been installed at the Reclaim Pond to assist with water treatment while the BAP is not being operated. The former concrete riser structure in the BAP was demolished in 2023 and the piped connection from the BAP to the Reclaim Pond has been plugged.

Temporary storage of filter press material from the modular treatment system was observed both on the Reclaim Pond embankment within a collection bin at the end of the press and in a

temporary concrete block bunker on the inside crest of the western BAP embankment. ERM understands that this material is consolidated and regularly hauled to the Residual Waste Landfill for disposal. ERM further understands that the filter press material is an acceptable waste for placement in the Residual Waste Landfill and the permit has been updated accordingly. Filter press material appeared to be contained and managed properly. A single minor point of potential seepage was observed near the toe of the Reclaim Pond embankment on the dewatered BAP side of the southern Reclaim Pond embankment. This was located at the approximate horizontal halfway point of the embankment and near the toe at an elevation similar to that of the former discharge piping from the demolished riser structure (Photograph 39 and 40). The water had no visible sheen or color that might be indicative of water quality. It appears to eventually flow in a narrow rill at a shallow low spot in the BAP where incidental rainwater collects and is periodically pumped from the BAP and into the modular water treatment system. This potential seepage area should be monitored weekly for indications of changes in flow, turbidity or indications of embankment movement near where it daylights. This potential seepage will need to be investigated and addressed prior to the BAP being reactivated. The water was being fully collected and managed and no indications of embankment instability were observed. The Plant is currently inspecting this potential seepage on a weekly basis.

4. 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 2024.
- Monthly inspection reports for the BAP.
- The 2023 Annual Inspection Report, Bottom Ash Pond dated 05 January 2024.
- Other documents that contain information on the design, construction, operation, and condition of the CCR unit, including the Closure Plans, previous instrument data before 2024, and the 2015 through 2023 Annual Inspection Reports.

Based on the review of the available data related to this inspection, there were no identified indications of potential structural weakness, significant slope instability, drainage or seepage issues, or other adverse conditions that would impact the stability and operation of this CCR unit. Where areas were identified requiring further monitoring or repair, these are described in Section 5.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 2023 ANNUAL INSPECTION FOLLOW-UP

A review of photographs and recommended repair items from the 2023 Annual Inspection Report included the following 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.

Based on the 2024 annual inspection and a review of weekly and monthly inspection reports, the majority of the above-identified repair items from the 2023 annual inspection of the BAP have been addressed and recommendations followed. The investigation and repair of the damaged riser pipe and reseeding localized bare spots on the eastern embankment remain to be completed.

5.2 2024 RECOMMENDATIONS

5.2.1 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 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 2024 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. Potential seepage on the southern embankment of the Reclaim Pond should be investigated and monitored with the weekly inspections. If changes in flow, color, or soil conditions surrounding the source are observed, increase level of monitoring. Explore potential sources of the flow and repair options. Continue to manage water through pumping into the modular water treatment system.
3. Continue to monitor the identified tension crack in the western slope. If movement continues, reassess repairs to close the crack to minimize stormwater infiltration and minimize the potential for additional movement. Investigate and perform permanent geotechnical repair once a future path for the former BAP is determined. Immediate permanent repair is not necessary given the drained condition of the facility.

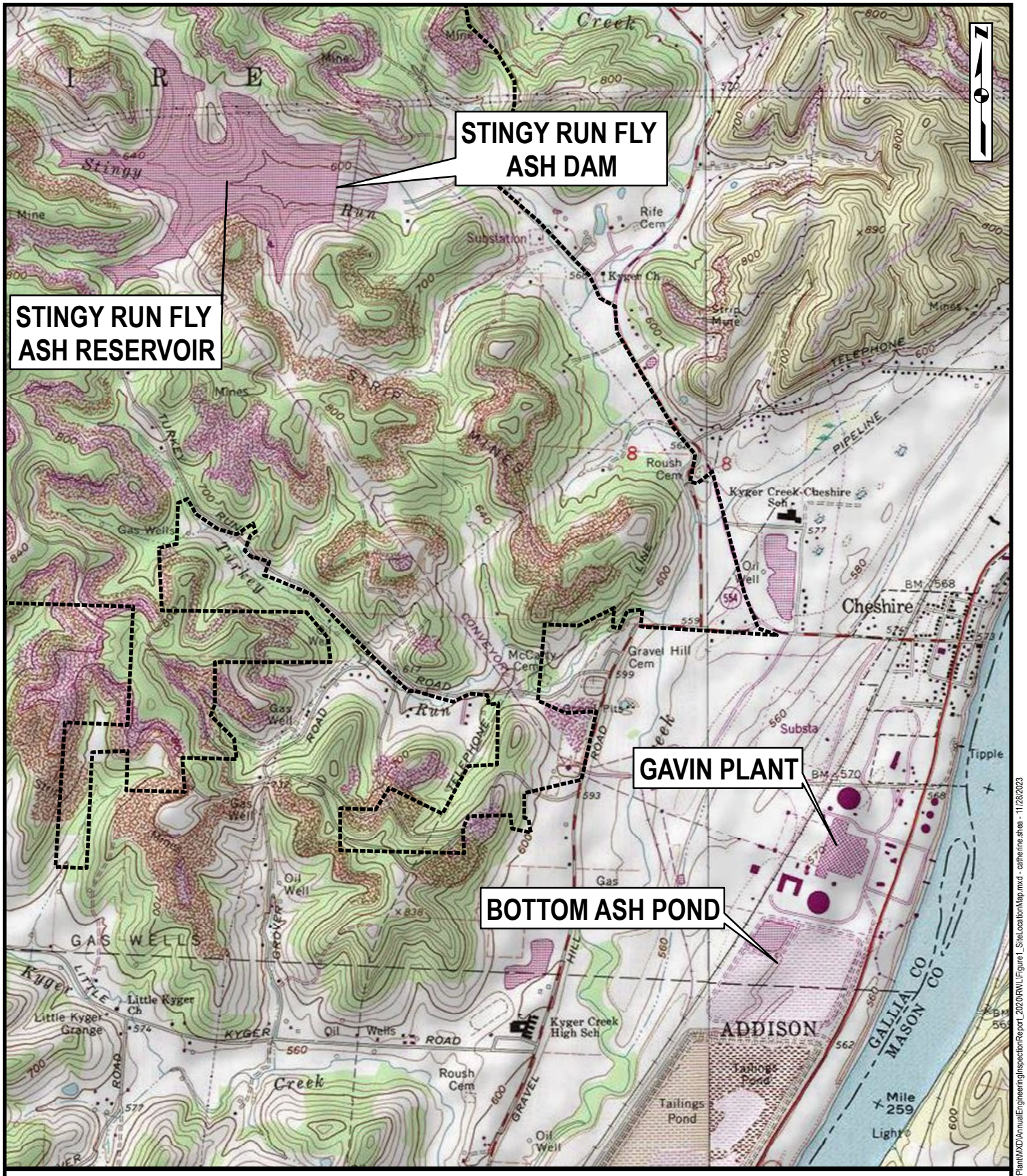
4. Remove eroded material and fertilize, lime, seed and mulch bare areas on the slope on the eastern embankment facing Ohio Route 7. Eroded material should be collected and disposed of as appropriate.
5. Perform final grading and soil preparation for stabilizing the pipeline installation along the northern embankment toe. Maintain and reinstall temporary erosion control (silt fence, etc.) as needed to prevent off site transport of sediments. Fertilize, lime, seed and mulch disturbed area.
6. Continue to monitor erosion rilling on the interior BAP slopes. Utilize rock fill to stabilize head cuts of deeper erosion features if they begin to advance into roadway embankment crests. If a decision on reuse of the BAP as a process water pond appears to be uncertain in the near term, ERM recommends applying seed and mulch to the interior to minimize erosion.
7. The riser pipe on the northern exterior slope was found to be rusted and broken (Photograph 24). If the unit is converted into a process water pond, the function of this feature should be assessed and replaced or repaired as necessary to aid in addressing localized areas where bare ground spots were observed.
8. Ensure regular trimming of embankment slope vegetation. Particular attention should be given to tall woody vegetation growth, which should continue to be mowed.
9. 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 BMPs.

5.3 CONCLUSIONS

Overall, the 2024 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 5.2.1. 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 2025 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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Legend

- Approximate Location of Bottom Ash Pond Boundary
- Gavin Property Boundary

NOTES:

1. Locations are approximate
2. Aerial Imagery: USDA National Agriculture Imagery Program (NAIP), November 2023; ESRI World Imagery

N

0 100 200 400

Feet

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

ERM

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Legend

- # Photograph Location
- Gavin Property Boundary
- Approximate Location of Bottom Ash Pond Boundary

NOTES:

1. Locations are approximate
2. Aerial Imagery: USDA National Agriculture Imagery Program (NAIP), November 2023; ESRI World Imagery

N

0 100 200 400

Feet

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

ERM

DRAWN BY: LV

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APPENDIX A ANNUAL INSPECTION PHOTOGRAPHS

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 1.	DATE 28 October 2024
DIRECTION PHOTO TAKEN West	
DESCRIPTION View of interior southern embankment. Minor erosion rills observed throughout interior embankment.	

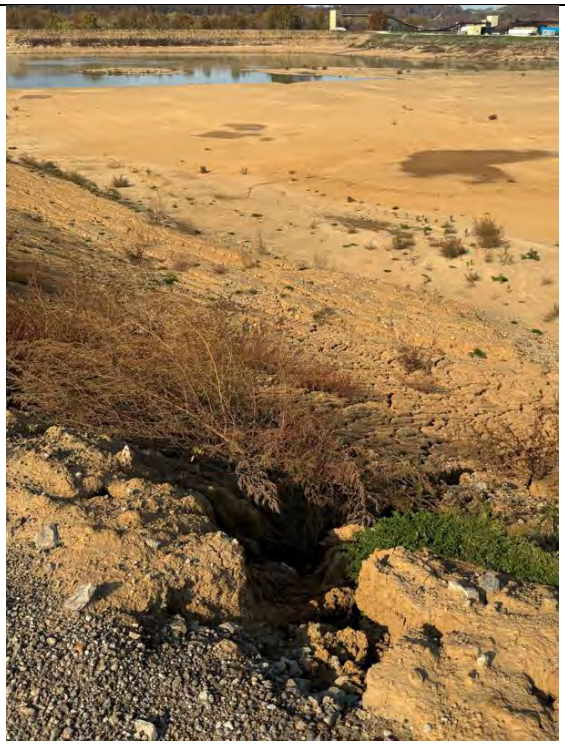


PHOTO NO. 2.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View of interior southern embankment. Minor erosion rills observed throughout interior embankment.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
3.	28 October 2024

DIRECTION PHOTO TAKEN
North

DESCRIPTION
View of BAP from southern embankment.

PHOTO NO.	DATE
4.	28 October 2024

DIRECTION PHOTO TAKEN
North

DESCRIPTION
View of BAP and interior eastern embankment from southeast corner of access road.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 5.	DATE 28 October 2024
DIRECTION PHOTO TAKEN West	
DESCRIPTION View of BAP and interior southern embankment from southeast corner of access road.	

PHOTO NO. 6.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View of northern interior embankment from top of slope. Slope appears stable. Piping down the slope is carrying water prior to entering treatment process.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
7.	28 October 2024

DIRECTION PHOTO TAKEN
East

DESCRIPTION
View of Reclaim Pond and water treatment process. Embankment slopes are stable, well vegetated, and armored at the toe near the water level. Turbidity curtains pictured in the middle of the pond.

PHOTO NO.	DATE
8.	28 October 2024

DIRECTION PHOTO TAKEN
South

DESCRIPTION
View of western BAP embankment outside slope, from turnout for Reclaim Pond embankment. Slope is stable and well vegetated. Ditch line towards south end of embankment is in satisfactory condition.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
9.	28 October 2024

DIRECTION PHOTO TAKEN
North

DESCRIPTION
Drainage ditch along exterior base of western embankment, near west side of Reclaim Pond. Slope is stable and well vegetated.

PHOTO NO.	DATE
10.	28 October 2024

DIRECTION PHOTO TAKEN
South

DESCRIPTION
Western embankment exterior slope. Slope is stable and well vegetated.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 11.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION Exterior southwest corner of BAP. Slope is stable and well vegetated.	

PHOTO NO. 12.	DATE 28 October 2024
DIRECTION PHOTO TAKEN West	
DESCRIPTION Southwest corner of BAP where drainage ditch leads to culvert inlet along chain link fence. Monitoring wells also pictured.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 13.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION Southwest corner of BAP drainage ditch line.	

PHOTO NO. 14.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION View of access road at the toe of slope and western embankment exterior slope. Slope is stable and well vegetated. Monitoring wells also pictured.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 15.	DATE 28 October 2024
DIRECTION PHOTO TAKEN South	
DESCRIPTION Exterior of western embankment. The beginning of a shallow tension crack is visible.	

PHOTO NO. 16.	DATE 28 October 2024
DIRECTION PHOTO TAKEN Southwest	
DESCRIPTION The stormwater pipe culvert within the ditch at the southwestern corner. Pipe is free of debris and in good working condition. A slight bend in the top of the inlet pipe is visible and does not affect operation.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 17.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION View of stormwater pipe culvert at the toe of western embankment.	

PHOTO NO. 18.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION Exterior southern embankment that is stable and well vegetated.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 19.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION Exterior southern embankment that is stable and well vegetated.	

PHOTO NO. 20.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View from the top of southern embankment. Slope is well vegetated and stable. Access road is well maintained.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 21.	DATE 28 October 2024
DIRECTION PHOTO TAKEN South	
DESCRIPTION View of exterior southern embankment from southeast corner of access road. Monitoring wells also pictured. Ohio Route 7 also visible.	

PHOTO NO. 22.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View of exterior southern embankment and gravel access road from southeast corner of access road. Slope is stable and well vegetated.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 23.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION Exterior eastern embankment that is stable and well vegetated. Ohio Route 7 also visible.	

PHOTO NO. 24.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION View of top exterior eastern embankment slope and BAP effluent pipelines. Slope is stable and well vegetated. Also pictured is well maintained mid slope access road. Ohio Route 7 also visible.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 25.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION View of lower exterior eastern embankment slope and BAP effluent pipelines. Slope is stable and well vegetated. Also pictured is well maintained mid slope access road. Ohio Route 7 also visible.	

PHOTO NO. 26.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View of exterior eastern embankment slope, at approximate midpoint of BAP. Previously observed crescent shaped scarp is visible. No soil movement or signs of seepage were visible, consistent with previous years' inspections. Area appears stable and well vegetated. Ohio Route 7 also visible.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
27.	28 October 2024

DIRECTION PHOTO TAKEN
North

DESCRIPTION
View of exterior eastern embankment.

PHOTO NO.	DATE
28.	28 October 2024

DIRECTION PHOTO TAKEN
West

DESCRIPTION
View of solids on exterior eastern embankment.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
29.	28 October 2024

DIRECTION PHOTO TAKEN
West

DESCRIPTION
View of exterior northern embankment. Recent construction work has disturbed area at the toe of slope.

PHOTO NO.	DATE
30.	28 October 2024

DIRECTION PHOTO TAKEN
West

DESCRIPTION
View of exterior northern embankment. Recent construction work has disturbed area at the toe of slope.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 31.	DATE 28 October 2024
DIRECTION PHOTO TAKEN South	
DESCRIPTION View of exterior northern embankment. Slope is stable and well vegetated with some areas of sparse cover. Directly below conveyor is accumulation of coal fines.	

PHOTO NO. 32.	DATE 28 October 2024
DIRECTION PHOTO TAKEN Southwest	
DESCRIPTION Corrugated steel riser in exterior slope of northern embankment of BAP. Appears to have been damaged by mowing equipment.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 33.	DATE 28 October 2024
DIRECTION PHOTO TAKEN North	
DESCRIPTION View of northern interior embankment from eastern access road.	

PHOTO NO. 34.	DATE 28 October 2024
DIRECTION PHOTO TAKEN East	
DESCRIPTION View of eastern interior embankment from northern embankment access road.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
35.	28 October 2024

DIRECTION PHOTO TAKEN
South

DESCRIPTION
View of northern interior embankment where effluent piping is discharging into a structure prior to entering treatment process.

PHOTO NO.	DATE
36.	28 October 2024

DIRECTION PHOTO TAKEN
West

DESCRIPTION
View of discharge location along the toe of the northern embankment. Piping is carrying water following treatment process to this structure that discharges into the river.

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO. 37.	DATE 28 October 2024
DIRECTION PHOTO TAKEN West	
DESCRIPTION View of northern embankment access road that is well maintained and in satisfactory condition.	

PHOTO NO. 38.	DATE 28 October 2024
DIRECTION PHOTO TAKEN South	
DESCRIPTION View of interior western and southern embankments of Reclaim Pond.	

Bottom Ash Complex Photographic Log

CLIENT: Lightstone Generation	SITE LOCATION: Gavin Power Plant Cheshire, Ohio	PROJECT NO.: 0720782

PHOTO NO.	DATE
39.	28 October 2024

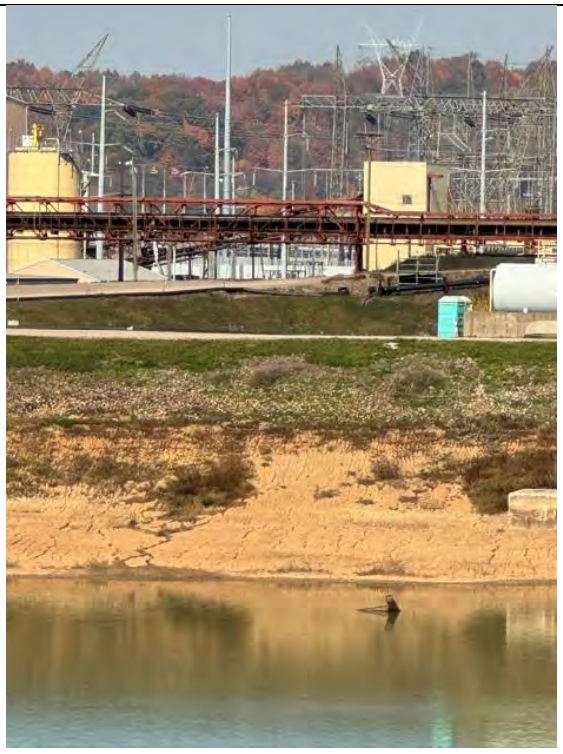
DIRECTION PHOTO TAKEN
South

DESCRIPTION
Southern embankment of the reclaim pond, interior to the BAP. The interior western embankment is visible to the right. A small point of potential seepage is visible in the center of the photo.

PHOTO NO.	DATE
40.	28 October 2024

DIRECTION PHOTO TAKEN
North

DESCRIPTION
Southern embankment of the reclaim pond, interior to the BAP. Photograph taken from southern embankment of BAP. Small point of potential seepage is visible in the bottom-left quadrant of the photograph.



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.

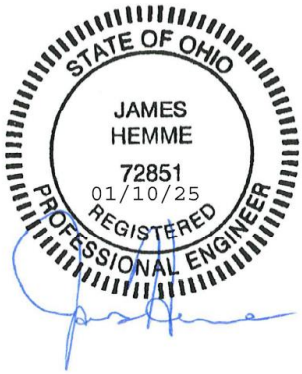
Significant: A reference to an item or activity which would impact the stability or daily operating conditions of the CCR unit. Generally, significant features develop over time and would likely be a result of maintenance not occurring when minor deficiencies were first noted. If left unchecked, such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



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James A. Hemme, P.E.

Date: 10 January 2025

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