# 2025 Annual Inspection Report

## Bottom Ash Pond

PREPARED FOR
Gavin Power, LLC

DATE
10 January 2025

REFERENCE
0767401

SIGNATURE PAGE

# 2025 Annual Inspection Report

## Bottom Ash Pond

0767401

**Joseph Robb, P.G.**
Partner

**Jesse Guillet, Ph.D.**
Project Manager

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

Environmental Resources Management, Inc.
One Beacon Street, 5th Floor
Boston, Massachusetts 02108

# CONTENTS



## LIST OF TABLES



## LIST OF FIGURES

## 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. Luis Velasquez P.E., performed the annual inspection on 20 October 2025 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.

Weather on that date consisted of partly cloudy to clear skies, light wind, and temperatures ranging from 44 degrees Fahrenheit to 71 degrees Fahrenheit. In the seven days prior to inspection, approximately 0.59 inches of precipitation was reported on October 20 by the local NOAA station located in Gallipolis, OH, immediately prior to ERM's site walk.

## 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 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 (Plant) is a coal-fired power station located in Gallia County, Ohio, in 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 Cheshire, 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 Gavin's National Pollutant Discharge Elimination System permit (Permit # 0IB00006*PD). The facility supplements water treatment at 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 and 2025 and was observed to be operating during the inspection.

At the time of the 2025 inspection, no observable change in the dimensions of the interior of the BAP were noted since removal of the CCR was completed in late 2023. The BAP floor appeared to be native clay soils and the interior side slopes of the BAP embankment were observed to be on a consistent grade. The two bottom ash sluice pipe locations that ran along the exterior eastern slope and through the eastern portion of the embankment at two locations were observed to have been removed since the 2024 inspection. Removal of the wooden bent support structures for each of the bottom ash pipe discharge locations was also performed. The two areas where piping was removed from within the embankment were observed to have been backfilled and rough graded

with the perimeter roadway re-established on the crest of the embankment. During ERM's site walkover, after significant rain earlier that day, the BAP was observed to be mostly dewatered with the exception of accumulated precipitation in the low point located on the western portion of the BAP. No depth gage is available at this location for precise measurements. Using engineering judgement, the accumulated water depth was estimated to be 3 to 4 feet deep near the center of the observed pooling.

Consistent shallow rill erosion was observed around the inside perimeter of the embankment (Photographs 1 & 2). At several locations rills have increased in size since the 2024 inspection into small gulleys with an average depth of approximately 12 inches. Eroded soil from the side slope erosion is captured within the BAP and is not leaving the location. Interior side 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 waste streams occurred in 2025. The volume of retained water from precipitation 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 streams of CCR material in the BAP in 2025 is zero (0) acre-feet.

# 3. BOTTOM ASH POND VISUAL INSPECTION

The 2025 annual visual inspection conducted for the BAP is summarized below. Referenced photographs are in **Appendix A**; **Figure 3** shows the approximate locations where photographs 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 2025 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.

Formerly accumulated bottom ash during the operational days of the BAP appeared to be removed from within the interior of the BAP. Accumulated precipitation was estimated at a maximum depth of 3 to 4 feet and appeared to be within the deepest incised portion of the BAP floor. This water was not being retained against the exterior BAP embankment at any observed location, nor is any smaller accumulation of standing water (Photographs 1, 2 & 3).

Non CCR process water is being intercepted at the piping entrances along the northern embankment. This water is collected using steel diversion boxes at two locations and routed into the Reclaim Pond system through use of high-density polyethylene diversion piping (Photograph 4) secured to the side slope on the interior of the northern embankment. Modular water treatment equipment is staged along the south and east interior embankment of the Reclaim Pond and is used to pre-treat influent process water prior to release into the Reclaim Pond. 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 5). Treated water is then either circulated for reuse or is pumped to a final polishing modular unit located just outside the northwest limits of the BAP and then is pumped into the gravity piping system for 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 6 through 13). The beginning of a shallow tension crack observed in 2024 and apparent shallow movement of surface soils was observed in similar condition to last year on the exterior vegetated slope just south of the midpoint of the embankment approximately a quarter of the distance down the slope

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

from the crest (Photograph 9). Gavin personnel are aware of this tension crack and it has been noted on the 7-day inspections and continues to be monitored for noticeable movement on a routine basis.

The following is a summary of the western embankment inspection observations:

1. No evidence of seeps along the toe of the embankment were observed.
2. The western exterior embankment was well vegetated (Photographs 6 through 13). Previously identified isolated hummocky areas on the exterior slope have not shown any signs of further movement or instability from the previous inspections. The isolated tension crack previously identified continues to range in width from 1 to 3 inches. An exact length of crack could not be determined given the thick vegetation but continues to be estimated at approximately 30 feet in length running roughly parallel with the land surface contour. This movement continues to be noted by the facility in their 7-day inspections and has been identified for repair once the direction of the BAP reconstruction is determined. 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. (Photograph 12).
4. As identified in previous reports, 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 7). Stormwater flow has created a minor depression at the outlet area. Regardless, the culvert is in satisfactory condition.

## 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 2 and 14 through 21). 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 (Photographs 15 through 21).
3. The interior embankment slope appeared stable (Photographs 3 and 14). In several isolated locations, the shallow rill erosion has progressed into deeper erosion features approximately 12 inches deep on average. 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 3 and 14).

## 3.3 EASTERN EMBANKMENT SECTION

The eastern embankment section was in satisfactory condition (i.e., mostly vegetated) during the annual inspection (Photographs 22 through 29). The significant change in this embankment is the removal of the former bottom ash steel piping system along the mid slope access road and the penetration of this piping through the embankment at the two previous inflow locations.

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 27, & 29). 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 24 through 26).
3. Periodic locations of eroded granular road base material on the crest of this embankment has proceeded to migrate downhill toward Ohio Route 7. 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 20 feet down the face of the slope (Photograph 23).
4. The eastern embankment access road was found in stable condition and remains well maintained (Photographs 22 and 27).
5. Former bottom ash sluice steel piping has been completely removed from the exterior face eastern embankment (Photograph 27). The piping formerly ran along the mid slope access road parallel with but elevated above Route 7. Bottom ash was observed in an assumed layer along the former path of the piping and appeared to have been historically placed as a base material under the piping run. This material appears to be present only on the outside of the berm, is superficial, and serves no structural function. Therefore, this material will be considered for removal during the vegetative growing season and placed within the Residual Waste Landfill (RWL). Disturbed areas should either have aggregate reapplied or disturbed soil seeded and mulched.

## 3.4 NORTHERN EMBANKMENT SECTION

The northern embankment section was in satisfactory condition (i.e., stable condition) and no visible indications of seepage, rutting or settling were noted along the slope. The disturbance noted at the toe of the northern embankment in 2024 has successfully revegetated (Photographs 30 through 40). The following is a summary of the visual inspection:

1. No evidence of seeps along the toe of the embankment were observed.
2. The northern embankment access road was found to be in stable condition and remains well maintained (Photo 30).
3. The condition of the exterior slope appeared stable and generally well vegetated. The new water pipeline to the coal yard installed parallel to the toe of the northern embankment in 2024 was successfully backfilled and revegetated (Photographs 31 through 37). Remnants of former erosion and sediment controls were observed (best management practices [BMPs]; i.e., silt fence) and it is recommended that those be removed and any soil disturbance from their removal, seeded and mulched.
4. A corrugated metal riser pipe on the northern exterior slope that was inaccessible in previous inspections had the heavy-steel lid removed during this site visit. This riser contained numerous valves and hose attachments and appeared in good condition (Photograph 34). The damaged CMP riser is a protective vault for this nest of valves and appears to be protecting them in a satisfactory condition. This riser is in the same condition as noted in previous reports being rusted and damaged. Repair of this riser mentioned in previous reports is a minor issue and should be monitored for progression and repaired if required to be protective of the valve system.
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 two steel collection structures located on the northern embankment of the BAP, and routed through high-density polyethylene diversion piping (Photograph 4) to the ancillary modular treatment system and then to the Reclaim Pond. The diversion piping appeared to be functioning in a satisfactory manner with no pipe leakage observed. The steel collection structures were observed to have minor leakage from each. Practices consisting of temporary collection sumps and portable pumps were being used to capture and reintroduce this leaked process water back into the treatment system. A minimal observable amount of leakage was also observed going into the floor of the BAP. This water appears to comingle with periodically accumulated stormwater and is pumped back into the treatment system from the low area near the western embankment (Photographs 38 and 39). ERM observed that two replacement steel collection structures were being fabricated during the site inspection. Discussions with Gavin personnel confirmed that

the leaking steel troughs were successfully replaced with the newly fabricated structures, which were installed from 17 November 2025 to 25 November 2025.

6. The exterior slope is stable and well vegetated along the conveyor (Photograph 32). Minor piles of coal fines have accumulated directly below the conveyor towards the crest of the embankment in several locations. These should continue to be removed under the routine maintenance procedures to minimize migration of coal fines down the exterior of the embankment.
7. The BAP permit information is presented on a sign located at the entrance to the BAP area at the NW corner (Photograph 40).

## 3.5 RECLAIM POND

The Reclaim Pond internal embankments 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 (Photograph 5).

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 after the BAP was closed. 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. The material handling procedure appeared to be the same procedure as observed during the 2024 inspection. ERM understands that this material is consolidated and regularly hauled to the RWL 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. Current BMPs to prevent spillage and tracking of this filter material should continue to be implemented (Photographs 41 and 42).

The single minor point of potential seepage observed in 2024 was observed to still be present in 2025. This seepage point is located 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 (Photographs 1 and 43). The potential seep continues to have no visible sheen or color that might be indicative of impaired water quality.

Since the 2024 inspection the facility has installed a scaffold stairway to the potential seep location and observes it on a weekly basis for indications of progression. This seepage continues to 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 seepage area should continue to 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 repurposed as a process water pond. No indications of embankment instability were observed. Discussions with Gavin personnel have indicated that the Plant is exploring engineering options to control this potential seep. First, Gavin is planning for the installation of a sump and temporary portable pump system to intercept seepage near the observed source and evacuate this water into the Reclaim Pond. Ongoing efforts include consultation with an engineering consultant on the feasibility of coffer dam installation and consultation with a contractor on feasibility for installation of a slurry wall or similar barrier within the southern berm of the reclaim pond.

# 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 BAP, in accordance with the requirements of 40 CFR § 257.83(b)(1)(i):

- 7-day inspection reports for the BAP for 2025.
- Monthly inspection reports for the BAP.
- The 2024 BAP Annual Inspection Report dated 10 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 2024 ANNUAL INSPECTION FOLLOW-UP

A review of photographs and recommended repair items from the 2024 Annual Inspection Report included the following for the BAP: (1) monitor embankment slopes where subsidence or sloughing might occur; (2) inspect the toe of slopes for potential seepage; (3) reseed indicated bare spots along slopes to re-establish vegetation; (4) regularly trim embankment slope vegetation; (5) repair expanding rills and gullies on the interior slope of the embankments as needed; (6) repair the damaged riser pipe on the northern embankment; (7) stabilize the pipeline corridor along the northern embankment toe with vegetation; and (8) continue weekly inspections.

Based on the 2025 annual inspection and a review of weekly and monthly inspection reports, the majority of the above-identified repair items from the 2024 annual inspection of the BAP have been addressed and the recommendations followed. The correction of interior erosion gullies progressing toward the roadway and reseeding localized bare spots on the eastern embankment remain to be completed.

## 5.2 2025 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 continues to be heavily reliant upon the final determination of how the BAP embankment will be utilized in the final BAP closure. Some activities, such as spot 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 2025 annual inspection:

1. Continue fabrication and replace the steel collection troughs used to consolidate and divert process water into the modular treatment facility. Once installed continue to monitor the new connection for leaks and correct as necessary. Based on discussion with Gavin personnel, the newly fabricated troughs were installed in November 2025 and are successfully diverting process water flows with no observed leakage.
2. Continue to remove stormwater accumulation from the low point in the BAP on a routine basis for treatment. Regulate levels to keep accumulated water from laying against embankment fill slopes.
3. Retouch grading on the exterior of the former penetrations of bottom ash sluice piping through the eastern embankment. Smooth hummocky areas and depressions capable of

holding small pockets of water (Photographs 23 and 27). Reseed, fertilize and mulch disturbance as necessary.

4. Continue to monitor locations along embankment slopes where hummocky or previous scarps were identified in previous inspections both during and after construction. Depending on future usage, continue to inspect the toe of all slopes for potential seepage.
5. Continue to monitor the identified tension crack in the western exterior slope. If movement continues or the crack elongates or increases in width, 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.
6. Potential seepage on the southern embankment of the Reclaim Pond should continue to be investigated and monitored with the weekly inspections. If changes in flow, color, or soil conditions surrounding the source are observed, increase the level of monitoring. Continue to manage water through pumping into the modular water treatment system and explore methods for correction of this seepage. Based on discussion with Gavin personnel, the Plant is exploring engineering options to prevent this potential seepage. In 2026, Gavin should proceed with their installation of an interim catchment sump near the source of the seep to intercept this flow and a pump system to evacuate the collected water and pump it to the Reclaim Pond.
7. 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.
8. CCR used as based material for the former steel bottom ash sluice piping network should be planned for removal and disposal within the RWL. The material appears to be in a stable condition along the roadway bench at the midpoint of the external eastern embankment. Incorporate this removal into final planning for the redesign and reconstruction of the BAP. Continue to monitor this material on a weekly basis and initiate removal activities if signs of erosion and movement of the material is observed.
9. Remove and spot seed/mulch any minor disturbance from removal of remaining temporary erosion controls (e.g. silt fence).
10. 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. ERM recommends repairing these head cuts and applying seed and mulch to the interior to minimize erosion.
11. The riser pipe on the northern exterior slope was found to be adequately protecting a nest of valves and hose attachments. Riser replacement or repair is not critical to its function for this

application. Continue to monitor this location for any adverse change in conditions and repair as necessary.

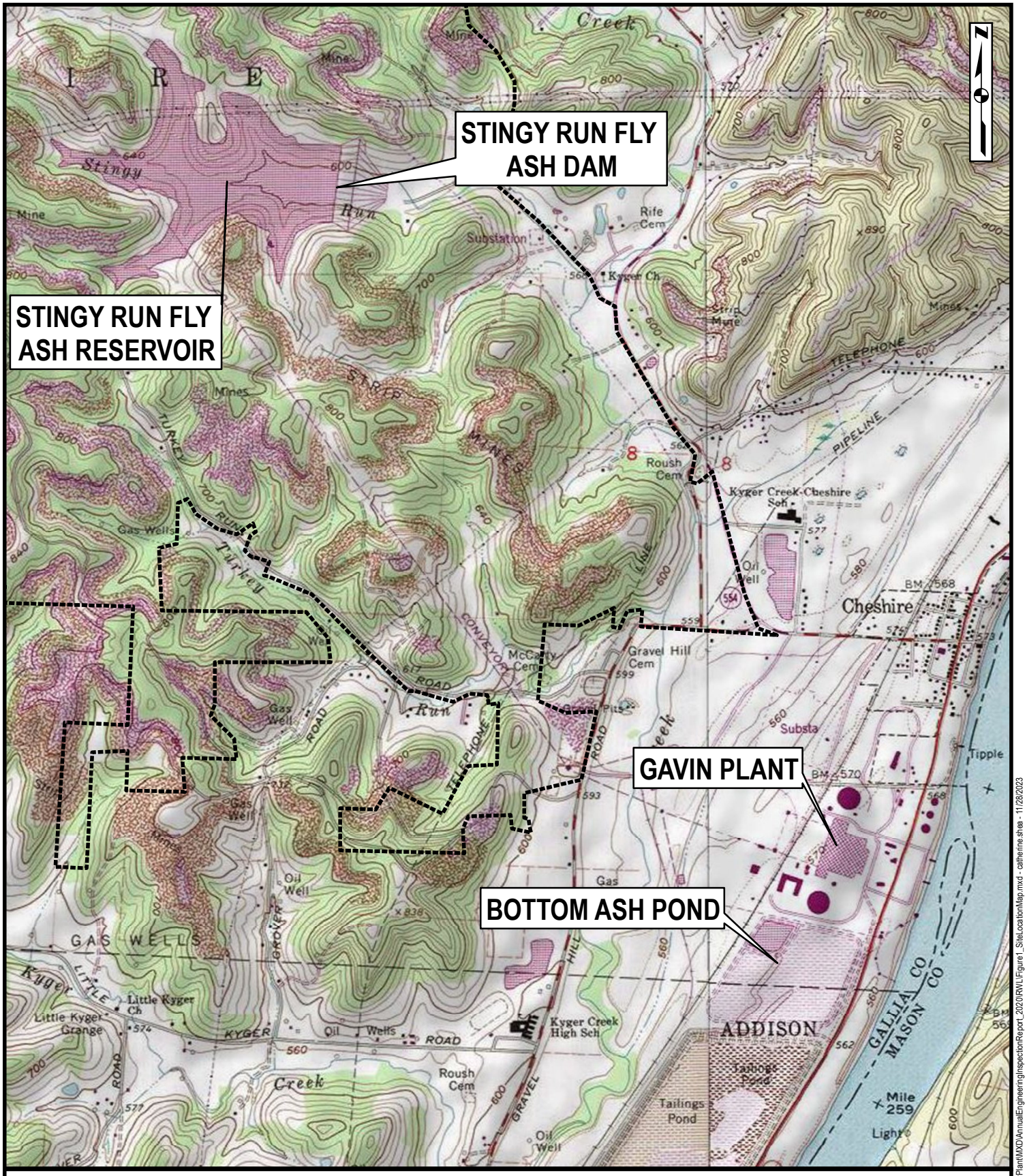
12. Ensure regular trimming of embankment slope vegetation. Particular attention should be given to tall woody vegetation growth, which should continue to be mowed.
13. The weekly and monthly inspections continue to point out any areas of the BAP that require attention, which in turn have been documented and addressed in a timely fashion. It is recommended that the Plant continue these BMPs.

## 5.3 CONCLUSIONS

Overall, the 2025 annual inspection indicated that the BAP CCR unit is in satisfactory operating condition and is stable. ERM identified several 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.

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 2026 in coordination with the final BAP closure activities.

# FIGURES

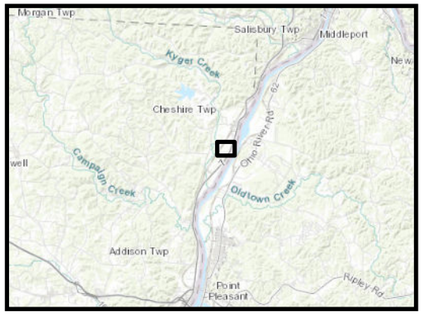



**SOURCE**
USGS scanned topographic quad maps provided by National Geographic Society (© 2023).

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

ERM

M:\US\Projects\A-C\Blackstone_Grp\GavinPowerPlant\MXD\AnnualEngineeringInspectionReport_2020\RWL\Figure1_SiteLocationMap.mxd - catherine.shea - 11/28/2023


## Legend

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

**NOTES:**
1. Locations are approximate
2. Aerial Imagery: Google Earth, 2025 Airbus, Maxar Technologies, USDA/FPAC/GEO

N

0 100 200 400
Feet

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

ERM

M:\US\Projects\A-C\Blackstone_Grp\GavinPowerPlant\MXD\112023_FigureUpdates\112023_FigureUpdates\112023_FigureUpdates\112023_FigureUpdates.aprx



## Legend

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

**NOTES:**

1. Locations are approximate
2. Aerial Imagery: Google Earth, 2025 Airbus, Maxar Technologies, USDA/FPAC/GEO

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

M:\US\Projects\A-C\Blackstone_Grp\GavinPowerPlant\MXD\2024_11_Figures\VisualInspectionMaps\VisualInspecti

# APPENDIX A ANNUAL INSPECTION PHOTOGRAPHS

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 1. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN South. | |
| DESCRIPTION View of BAP from northern embankment at area of potential seepage under investigation. | |

| PHOTO NO. 2. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP western and southern embankment interior slopes from SW corner. Erosion rills observed along interior slopes and bottom surface. Surface stormwater accumulation within BAP observed to be up to approximately 3-4 feet deep at time of inspection. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 3. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN West. | |
| DESCRIPTION View of BAP southern embankment interior slope. Erosion rills and forming gullies observed along interior slope. | |

| PHOTO NO. 4. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East | |
| DESCRIPTION View of the northern embankment of the BAP, taken from the center of the northern embankment looking east. HDPE piping is visible on the interior embankment. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 5. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Southeast. | |
| DESCRIPTION View of Reclaim Pond from NW corner of BAP. Water filtration process trailers observed in background. | |

| PHOTO NO. 6. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP western embankment exterior slope near NW corner. Vegetation is well maintained. Hummocky areas observed stable. Some minor exposed areas and mowing tracks observed. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 7. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP western embankment exterior slope. Bottom slope ditchline and drain pipe observed in good condition. | |

| PHOTO NO. 8. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP western embankment exterior slope. Area of apparent tension cracking across slope. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 9. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP western embankment exterior slope. Area of apparent tension cracking across slope (fieldbook shown for scale). | |

| PHOTO NO. 10. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Front view. | |
| DESCRIPTION View of BAP western embankment exterior slope. Hummocky terrain observed stable. Small exposed areas and mowing tracks observed. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 11. | DATE 20 October 2025 |
|---|---|

DIRECTION PHOTO TAKEN
North.

DESCRIPTION
View of BAP western embankment exterior slope near southwest bottom corner. Bottom ditchline drain outlet observed rusted and with minor damage but not affecting through flow.

| PHOTO NO. 12. | DATE 20 October 2025 |
|---|---|

DIRECTION PHOTO TAKEN
South.

DESCRIPTION
View of BAP western embankment exterior slope near southwest bottom corner. Bottom ditchline drain inlet observed in good condition.

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 13. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Southwest. | |
| DESCRIPTION View of BAP bottom southwest corner drainage culvert inlet, observed in good condition. | |

| PHOTO NO. 14. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP southern embankment crest road. Erosion gullies observed cutting into road from interior slope on left side. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 15. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP southern embankment exterior slope bottom near SW corner. Monitoring wells observed in good condition and locked. | |

| PHOTO NO. 16. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Northeast. | |
| DESCRIPTION View of BAP southern embankment exterior slope top near SW corner. Small area of sparse vegetation observed across slope. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 17. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP southern embankment exterior slope. Vegetation cover observed in general good condition. | |

| PHOTO NO. 18. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Front view. | |
| DESCRIPTION View of BAP southern embankment exterior slope from bottom. Small isolated areas of overgrown vegetation and exposed tracks from mowing observed. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 19. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN<br>Top view. | |
| DESCRIPTION<br>View of BAP southern embankment exterior slope from top. | |

| PHOTO NO. 20. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN<br>East. | |
| DESCRIPTION<br>View of BAP southern embankment exterior slope from bottom. Remnant water from rainfall the morning of the inspection. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 21. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP southern embankment exterior slope at SE bottom corner. Isolated areas of overgrown vegetation observed. | |

| PHOTO NO. 22. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN North. | |
| DESCRIPTION View of BAP eastern embankment interior slope from access road. Erosion rills and forming gullies observed along slope. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant<br>Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. | DATE |
|---|---|
| 23. | 20 October 2025 |

DIRECTION PHOTO TAKEN
Top view.

DESCRIPTION
View of BAP eastern embankment exterior slope near SE corner. Small exposed areas and apparent erosion from access road surface observed.

| PHOTO NO. | DATE |
|---|---|
| 24. | 20 October 2025 |

DIRECTION PHOTO TAKEN
South.

DESCRIPTION
View of BAP eastern embankment exterior slope. Scarp area #1 (northmost) observed stable.

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 25. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN South. | |
| DESCRIPTION View of BAP eastern embankment exterior slope. Scarp area #2 observed stable. | |

| PHOTO NO. 26. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN South. | |
| DESCRIPTION View of BAP eastern embankment exterior slope. Scarp area #3 (southmost) observed stable. Isolated areas of overgrown vegetation observed. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

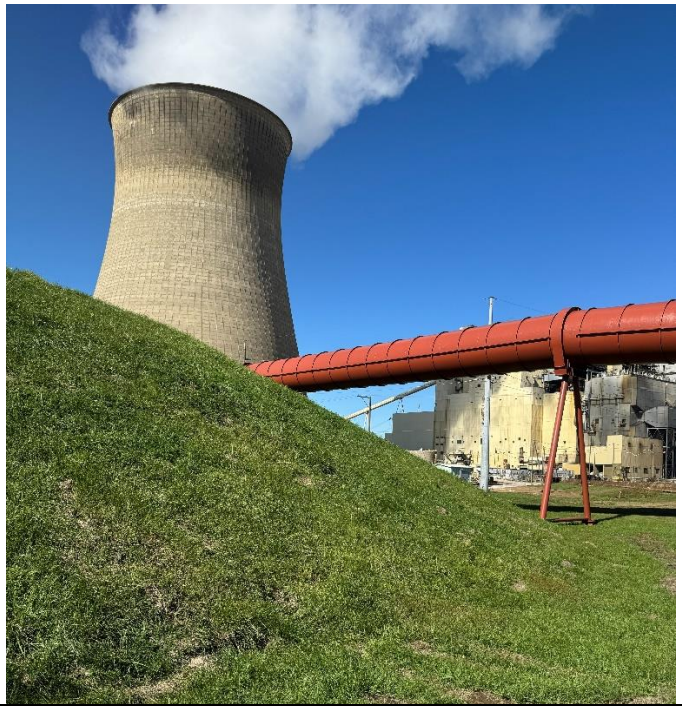
| PHOTO NO. 27. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN South. | |
| DESCRIPTION View of BAP eastern embankment exterior slope. Exposed areas of removed piping. | |

| PHOTO NO. 28. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN West. | |
| DESCRIPTION View of BAP eastern embankment interior slope top from access road. Erosion gullies (up to approximately 3 ft deep) observed starting to cut into access road surface. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 29. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Northwest. | |
| DESCRIPTION View of BAP eastern embankment exterior slope at NE bottom corner. Generally good condition and vegetation cover observed. | |



| PHOTO NO. 30. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN West. | |
| DESCRIPTION Northern embankment access road, from NE corner of BAP. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 31. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP northern embankment exterior slope near NE bottom corner. Isolated areas of sparse vegetation observed. | |

| PHOTO NO. 32. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Top view. | |
| DESCRIPTION View of BAP northern embankment exterior slope from top. Some areas of excess coal accumulation observed along slope. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 33. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP northern embankment exterior slope bottom. Isolated areas of sparse vegetation cover (fieldbook shown for scale). | |

| PHOTO NO. 34. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP northern embankment exterior slope from bottom. Open-top corrugated riser observed with apparent damage at surface. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 35. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN West. | |
| DESCRIPTION View of BAP northern embankment exterior slope bottom. Standing water observed at bottom area of recent excavation backfill in background. Temporary piped discharge to NPDES outfall. | |

| PHOTO NO. 36. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Southwest. | |
| DESCRIPTION View of BAP northern embankment exterior slope near NW top corner. Hummocky terrain observed in stable condition. Isolated areas of sparse vegetation observed. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 37. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN East. | |
| DESCRIPTION View of BAP northern embankment exterior slope from NW top corner. Generally good vegetation cover observed. | |

| PHOTO NO. 38. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Northwest. | |
| DESCRIPTION View of BAP northern embankment interior slope near NE corner. Seepage observed at effluent discharge spillways on northern slope into BAP. Facility personnel actively working on repair plan. | |

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. | DATE |
|---|---|
| 39. | 20 October 2025 |

DIRECTION PHOTO TAKEN
South.

DESCRIPTION
View of BAP northern embankment interior slope from top access road. Seepage observed at effluent discharge spillway into BAP. Facility personnel actively working on repair plan.

| PHOTO NO. | DATE |
|---|---|
| 40. | 20 October 2025 |

DIRECTION PHOTO TAKEN
Front view.

DESCRIPTION
View of BAP permit sign at entrance.

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. 41. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN Northeast | |
| DESCRIPTION View of filter cake active stockpile from Reclaim Pond water filtration operations. | |

| PHOTO NO. 42. | DATE 20 October 2025 |
|---|---|
| DIRECTION PHOTO TAKEN South. | |
| DESCRIPTION View of filter cake active stockpile from Reclaim Pond water filtration operations. | |

# Bottom Ash Complex Photographic Log

| CLIENT: Lightstone Generation | SITE LOCATION: Gavin Power Plant Cheshire, Ohio | PROJECT NO.: 0767401 |
|---|---|---|

| PHOTO NO. | DATE |
|---|---|
| 43. | 20 October 2025 |

DIRECTION PHOTO TAKEN
Front view.

DESCRIPTION
View of Reclaim Pond southern embankment, BAP interior slope at area of potential seepage under investigation.

# 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 or safety viewpoint. Generally, these conditions would be identified and could be remedied through the normal maintenance process.

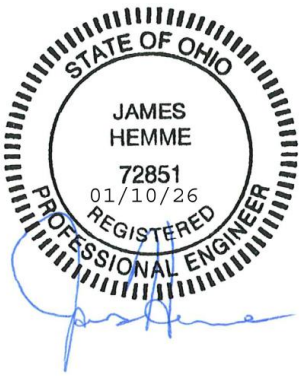
**Significant:** A reference to an item or activity which would impact the stability or daily operating conditions of the CCR unit. Generally, significant features develop over time and would likely be a result of maintenance not occurring when minor deficiencies were first noted. If left unchecked,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




_____

**James A. Hemme, P.E.**

Date: 10 January 2026

ERM HAS OVER 160 OFFICES ACROSS THE FOLLOWING COUNTRIES AND TERRITORIES WORLDWIDE

Argentina
Australia
Belgium
Brazil
Canada
China
Colombia
France
Germany
Ghana
Guyana
Hong Kong
India
Indonesia
Ireland
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
Mozambique
The Netherlands
New Zealand
Peru
Poland
Portugal
Romania
Senegal
Singapore
South Africa
South Korea
Spain
Switzerland
Taiwan
Tanzania
Thailand
UAE
UK
US
Vietnam

ERM Consulting & Engineering
One Beacon Street, 5th Floor
Boston, Massachusetts 02108

**www.erm.com**