

Former Milesburg Ash Disposal Basin Initial Structural Stability Assessment Report

West Penn Power Company
Former Milesburg Power Station
Centre County, Pennsylvania

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Certification/Statement of Professional Opinion

The Initial Structural Stability Assessment Report (Report) for the former Milesburg Ash Disposal Basin was prepared by GAI Consultants, Inc. (GAI). The Assessment Report was based on certain information that, other than for information GAI originally prepared, GAI has relied on, but not independently verified. Therefore, this Certification/Statement of Professional Opinion is limited to the information available to GAI at the time the Assessment Report was written. On the basis of and subject to the foregoing, it is my professional opinion as a Professional Engineer licensed in the Commonwealth of Pennsylvania that the Report has been prepared in accordance with good and accepted engineering practices as exercised by other engineers practicing in the same discipline(s), under similar circumstances, at the time, and in the same locale. It is my professional opinion that the Report was prepared consistent with the requirements of § 257.73(d) of the United States Environmental Protection Agency's "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments," published in the Federal Register on April 17, 2015 with an effective date of October 19, 2015 and amended on May 8, 2024 with an effective date of November 8, 2024.

The use of the words "certification" and/or "certify" in this document shall be interpreted and construed as a Statement of Professional Opinion and is not and shall not to be interpreted or construed as a guarantee, warranty or legal opinion.



Arica L. DiTullio, P.E.
Engineering Director



1.0 Introduction

The former Milesburg Ash Disposal Basin (Ash Disposal Basin) is a legacy coal combustion residuals (CCR) surface impoundment located in Centre County, Pennsylvania (PA) approximately 0.25 miles west of the former Milesburg Power Station (Station). The Station is an inactive electric utility also located in Centre County, PA. The former Ash Disposal Basin was used for the management, storage, and disposal of CCR when the former Station was operational. The former Station operated from approximately 1950 until 1984 and was demolished on or around 1999.

The former Ash Disposal Basin was constructed in 1968. In 1970, the embankment was raised ten feet to provide additional disposal volume. The former Ash Disposal Basin was used to manage CCR from approximately 1968 until 1974 when the fuel source was switched from coal to oil. After 1974, the former Ash Disposal Basin was used to manage wastewater from the former Station. Following shutdown of the facility, the former Ash Disposal Basin no longer was used for management of wastewater or CCR.

An inspection report by GAI Consultants, Inc. (GAI) from 1980 indicates that routine maintenance was completed at the former Ash Disposal Basin at that time, including control of tree growth on the embankment and cleaning of the overflow riser pipe. The embankments remain in place, and the former Ash Disposal Basin is not currently used for CCR management, and no CCR management is proposed to occur in the future. The former Ash Disposal Basin is currently vegetated.

The maximum embankment height is approximately 24 feet with an approximate crest elevation (El.) of 724 feet. The available storage capacity, assuming that the current topography represents an empty pond, is approximately 104 acre-feet (4,530,000 cubic feet). Some ponded water has been observed within the western portion during multiple site visits conducted between 2024 and 2026.

2.0 Purpose

This Initial Structural Stability Assessment Report (Report) was prepared in accordance with the applicable requirements at § 257.73(d) and § 257.100(f)(2)(iv) of the United States (US) Environmental Protection Agency's (EPA's) 40 Code of Federal Regulations (CFR) Part 257, Subpart D, *Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments* (CCR Rule).

3.0 Information Review

GAI Consultants, Inc. (GAI) reviewed the documents listed under the References section, which include available historic drawings, property maps, topography, system flow diagrams, reports, inspections, and correspondence.

3.1 Visual Inspection

A visual inspection of the former Ash Disposal Basin was performed on March 31, 2026, as part of the initial structural stability assessment. During the inspection, GAI personnel did not identify any signs of distress or malfunction that would affect the structural condition of the former Ash Disposal Basin. No releases of CCR were observed during this inspection.

3.2 Stable Foundations

A subsurface exploration conducted in 2026 generally indicated the foundation soils as clays and sands overlying the weathered rock (Data Report, *Reference 4*). Weathered rock was encountered at depths ranging from 15.2 to 18.3 feet below the ground surface (bgs). Based on the information from subsurface investigation and description of foundation material, review of historical information, and visual inspection, foundation materials seem adequate for the CCR unit.

GAI also performed stability analyses in 2026 (Safety Factor Assessment Report, *Reference 2*) to determine if the former Ash Disposal Basin construction and operation satisfy the safety factors listed in § 257.73(e). The analyses were conducted assuming the maximum volume of impounded water and

CCR. The calculated static safety factor under the long-term, maximum storage pool and maximum surcharge pool loading conditions exceeded the minimum of 1.50 and 1.40, respectively stated in the CCR Rule. The calculated seismic safety factor exceeded the minimum of 1.00 stated in the CCR Rule.

3.3 Slope Protection

The external and internal embankment slopes of the former Ash Disposal Basin are vegetated to protect against erosion. During the 2026 inspection, GAI personnel did not identify any signs of distress in the embankments of the former Ash Disposal Basin.

3.4 Dike Compaction

Per the preamble to the 2015 CCR Rule, “EPA recognizes that it would be highly difficult for owners or operators of older units to certify with any certainty that the unit’s construction meets the specific numeric compaction criteria found in the ASTM standards” (80 FR 21381). A subsurface investigation conducted by GAI in January 2026 included two borings through the existing embankment and indicated that the density of embankment material generally increased with depth. From this observation, 2026 visual inspection, and the results of the stability analyses, it is GAI’s opinion that the embankment seems to be in stable condition.

3.5 Vegetated Slopes

As part of 2026 inspection, GAI also evaluated the vegetation on the slopes of the embankment. The slopes of the embankment are well vegetated with grass, shrubs and trees. The vegetated slopes currently allow for visual observation of the former Ash Disposal Basin and its embankments. GAI recommends trees be removed and vegetation be trimmed.

3.6 Spillway Capacity and Underlying Hydraulic Structures

The former Ash Disposal Basin is a significant hazard potential legacy CCR surface impoundment per Section 257.73(a)(2)(i) of the CCR Rule. Per Section 257.73(d)(1)(v)(B), a significant hazard potential legacy CCR surface impoundment must manage flow resulting from the 1,000 year storm event.

A riser (principal spillway) remains within the former Ash Disposal Basin. The riser is a 6-foot diameter corrugated metal pipe (CMP) and skimmer, standing at an estimated invert of El. 712.3 feet. The riser is located in the northwestern portion of the former Ash Disposal Basin. Historic records indicate that the riser was lowered sometime after the former Ash Disposal Basin was no longer actively used for CCR or wastewater management. Historic records do not indicate the elevation of the lowered riser pipe, so the elevation was estimated as part of the analyses completed for this plan (*Reference 3*).

Historic records indicate that the riser discharges to a 36-inch diameter concrete pipe with an approximate invert of El. 705 feet. The concrete pipe is routed through the existing embankment and discharges on the northern side, upgradient of Bald Eagle Creek.

It is unclear if the riser and discharge pipe remain functional. During multiple site visits conducted between 2024 and 2026, no observations of discharge from the structure were noted. Areas with minor amounts of ponded water have been observed within the lowest elevation portion of the former Ash Disposal Basin. GAI recommends that a camera inspection be performed of the riser and discharge pipe to confirm functionality.

The Inflow Design Flood Control System Plan (*Reference 3*) contains calculations that demonstrate the ability of the former Ash Disposal Basin to contain the peak discharge from the 1,000-year flood without overtopping of the embankments, regardless of whether the existing riser and discharge pipe function or not.

3.7 Adjacent Water Bodies

The northwestern embankment is in the vicinity of Bald Eagle Creek. Bald Eagle Creek is not directly adjacent to the embankment, and the area between the Creek and the former Ash Disposal Basin is adequately wooded; thus, a structural stability analysis with adjacent water bodies was not performed.

4.0 Corrective Measures

Based on a review of available material and the analyses performed for this Structural Stability Assessment, at this time no deficiencies were detected in the structural stability analysis of the former Ash Disposal Basin and no corrective measures are required. However, GAI recommends that trees be removed and vegetation trimmed on the embankments. GAI also recommends that a camera inspection be performed for the riser and discharge pipe to confirm functionality.

5.0 Conclusion

GAI reviewed available historic documentation for this Structural Stability Assessment. The former Ash Disposal Basin no longer receives CCR or wastewater, and no active placement of CCR is proposed to occur in the future. Based on the analyses conducted for the conditions outlined in the CCR Rule, the former Ash Disposal Basin design, construction, operations, and maintenance is consistent with good engineering practices for the volume of CCR and water contained in the impoundment.

6.0 References

1. GAI Consultants, Inc. *History of Construction Report*. February 2026.
2. GAI Consultants, Inc. *Safety Factor Assessment Report*. May 2026.
3. GAI Consultants, Inc. *Initial Inflow Design Flood Control System Plan*. May 2026.
4. GAI Consultants. *Data Report – Former Milesburg Ash Disposal Basin*. May 2026.