Coleman Station Legacy Pond A CCR Surface Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

May 8, 2026

Prepared By:

ASSOCIATED ENGINEERS, INC.
2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789

Project ID: 26-0144

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

CCR Surface Impoundment Information

Name:	Pond A Legacy CCR Impoundment
Operator:	BREC Coleman Station
Address:	4982 River Road Hawesville, Kentucky 42348

CCR Unit Identification Number: Kentucky State Dam Inventory System ID No. 0855

Qualified Professional Engineer

Name:	David A. Lamb
Company:	Associated Engineers, Inc.
Kentucky P.E. Number:	17822

Regulatory Applicability

As part of the § 257.73 Structural integrity criteria for existing CCR surface impoundments requirements, an owner or operator of an existing CCR surface impoundment must no later than May 8, 2026:

Conduct initial structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

From: VI. Development of the Final Rule - Technical Requirements

In order to ensure the proper upkeep and operation of the CCR unit, the owner or operator must demonstrate that the CCR surface impoundment has been designed, constructed, operated and maintained to provide structural stability. Specifically, the final rule requires the owner or operator to demonstrate that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and water that can be impounded therein. Specifically, the final rule focuses on the critical structural aspects of the CCR surface impoundment that EPA identified in the proposed rule, and identifies the minimum elements that a professional engineer must provide engineering details on or otherwise address. Consistent with the proposal, these demonstrations must be certified by a qualified professional engineer.

In addition to implementing adequate slope protection against erosion, which is a structural stability requirement applicable to all CCR units, the owner or operator of a CCR surface impoundment exceeding the specified size threshold (height of five feet or more and a storage volume of 20 acre-feet or more; or a height of 20 feet or more) must demonstrate that the unit, including any vertical and lateral expansions, is constructed with ‘‘stable foundations and abutments.’’ A stable foundation is an essential element of surface impoundment construction

and prevents differential settlement of the embankment which can result in adverse internal stresses with the embankment cross-section.
Consistent with general engineering construction methodologies, the structural stability assessment also requires the owner or operator to determine whether the CCR surface impoundment has been mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit. Compaction of a dike or embankment is considered essential, as the compaction of soils leads to an increase in density and subsequently strength. Soil mechanics theory has established that the density of a soil corresponds to the moisture content and strength of the soil. The rule requires the owner or operator make this determination for all dikes of a CCR surface impoundment.

The owner or operator must also design, construct, operate, and maintain the CCR surface impoundment spillway or spillways with appropriate material so as to prevent the degradation of the spillway, as well as to ensure that the CCR surface impoundment has adequate spillway capacity to manage the outflow from a specific inflow design flood. In addition, a demonstration must be made that the CCR surface impoundment has been designed, constructed, operated, and maintained with inflow design flood controls and/or spillway capacity to manage peak discharge during and following inflow design floods. This demonstration is required to ensure the CCR surface impoundments will have adequate hydrologic and hydraulic capacity to prevent such failures as overtopping and excessive internal seepage and erosion. Spillways must be designed to withstand discharge from the inflow design flood without losing their structural form and leading to discharge issues, such as erosion or overtopping of the embankment. This requirement is covered in more detail in the hydrologic and hydraulic capacity requirements for CCR surface impoundments section of this rule.

EPA is not requiring a facility to include any demonstration relating to the potential for rapid, or sudden, drawdown loading condition. Rapid or sudden drawdown is a condition in earthen embankments in which the embankment becomes saturated through seepage in an extended high pool elevation in the reservoir. A threat to the embankment emerges when the reservoir pool is drawn down or lowered at a rate significantly higher than the excess poor water pressure within the embankment can diminish. Typically, rapid drawdown scenarios are considered for embankments with reservoirs used for water supply and management, emergency reservoirs, or agricultural supply, in which the reservoir is rapidly discharged from the structure.

A second consideration regarding rapid drawdown, however, is the rapid drawdown of a water body adjacent to the slope of the CCR surface impoundment which may periodically inundate the slope. Many CCR surface impoundments are located in areas in which the downstream slope of the CCR surface impoundment runs down to a lake, stream, or river. In such instances, rapid drawdown must be considered for the stability of the downstream slope of the embankment in the event of a rapid drawdown in the lake, stream, or river pool elevation or stage. Because the water ponded against the downstream slope of the CCR surface impoundment provides a stabilizing load on the slope of the CCR surface impoundment, the rapid or gradual loss of this stabilizing force must be considered in the analysis of the CCR surface impoundment. The rule, therefore, requires that existing and

new CCR surface impoundments and any lateral expansions of such units with a downstream slope that can be inundated by an adjacent water body, such as rivers, streams, or lakes, be constructed with downstream slopes that will maintain structural integrity in events of low pool or rapid drawdown of the adjacent water body. This ensures that the structural integrity of the downstream slope of the CCR surface impoundment will be maintained, even though the conditions of an adjacent surface water body may be outside the owner or operator's control.

Description of Impoundment

An aerial photo of the CCR unit is provided as Attachment A and an excerpt from U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps showing the location of the CCR unit is provided as Attachment B.

The Legacy CCR unit which has been in place for 45 years, was used for the placement of coal combustion residual material; Primarily sluiced fly ash and bottom ash. No CCR was placed in the pond after the coal units were retired in May 2014. The immediate watershed that drains to the CCR unit and in which the CCR unit is located, is unnamed and 48 acres in size. This is an elevated structure, and the only inflow is precipitation that falls directly on the structure. Discharge is routed directly to the Ohio River

The CCR unit is a combined incised/earthen embankment structure. Embankments form the perimeter of the structure. The lower portion of the structure is incised. The interior of the pond was used as a borrow area. Original ground inside the structure ranged in elevation from elevation 390 to elevation 400. Based on the Burns & Roe, Inc. Design Manual dated February 1980 the borrow excavation went as low as elevation 388. The Ohio River is located approximately 200 feet east of the structure. Due to surface relief, the toe area of the structure is subject to flooding. The area was made up of cultivated fields containing a house place. The area generally drains east to the Ohio River. Underlying preconstruction soils consisted of Quaternary Alluvium. This material is variable in composition, locally consisting of unconsolidated sand, gravel, silt, or clay. Bedrock underlying the site is part of the Pennsylvanian Caseyville and Tradewater formations. Bedrock lies a 115' to 165' below the surface.

The dike is generally at elevation 415. The dike reaches a maximum height of 27 feet along the northwest corner. The dike reaches a maximum height of approximately 28 feet on the northwest corner. The Associated Engineers, Inc. survey dated March 20, 2019 was reviewed. It should be noted that the current condition was field verified. Based on grading activities that have occurred after the pond ceased receiving CCR there is no longer impounded water visible in the structure. The SM&E geotechnical report dated April 2019 indicated that no groundwater was encountered in holes drilled inside the pond limits.

Depths of impounded water and CCR are 0.0 feet and 27 feet (at respective locations of maximum impounded water and CCR depths). Corresponding elevations of impounded CCR is 411 feet, above mean sea level. This was verified by geotechnical drilling conducted inside the dry pond in April 2019.

The remaining storage capacity is approximately 217,800 cubic yards (if water can accumulate to the elevation of the emergency spillway). This volume was calculated based on the maximum allowable storage volume and the current volume of CCR stored in the facility based on the most recent survey.

The approximate volume of impounded water and CCR is 1,470,00 cubic yards (approximate water volume is 2,250 cubic yards (in an isolated shallow depression) and approximate CCR volume is 1,467,749.00 cubic yards). This volume was calculated based on the maximum storage capacity, the current amount of CCR stored in the facility based on the most recent survey, and the best available as-built data for the structure construction prior to placement of CCR.

The CCR impoundment emergency discharge consists of a rip rap trapezoidal channel with a bottom width of 20 feet at elevation 414 feet with 30:1 side slopes to elevation 415. This discharges into a rip rap energy dissipation pad. There is no evidence that this emergency spillway has discharged. The primary discharge of the impoundment is a concrete discharge structure with adjustable stop logs with a minimum elevation of 388 discharging to a 36" reinforced concrete pipe at elevation 386 which discharges to the Ohio River. Stop logs have been placed to elevation 408 and the pond shows no evidence of discharging or accumulating water.

Results of the Initial Structural Stability Assessment

The initial structural stability assessment has been completed and documents whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. Slope stability analyses were performed using Rocscience Inc. Slide geotechnical software. Slide provides numerical tools to analyze the stability of embankments using limit equilibrium methods.

The assessment documents whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

   The 2026 Annual Inspection indicates that the Coleman Station Legacy Pond A CCR impoundment exhibits stable foundations and abutments. No related deficiencies were observed during the annual inspection.

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond A CCR impoundment exhibits adequate slope protection from erosion, wave action and any effects if sudden drawdown could occur. No related deficiencies were observed during the annual inspection.

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

   Quality assurance and/or testing reports describing the compaction methods and results during embankment construction are not available. A geotechnical exploration was performed to meet the requirements of 40 CFR §257.73(e); the exploration included Standard Penetration Testing (SPT) and acquisition of undisturbed soil samples. Based on the field results and laboratory analyses, the materials within the embankment are sufficient to withstand the anticipated loading conditions.

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond A CCR impoundment embankment exhibits vegetation mostly less than a height of twelve inches above the slope of the dike. This is adequate for inspection purposes.

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

   The CCR impoundment emergency discharge consists of a rip rap trapezoidal channel with a bottom width of 20 feet at elevation 414 feet with 30:1 side slopes to elevation 415. This discharges into a rip rap energy dissipation pad. There is no evidence that this emergency spillway has discharged. The primary discharge of the impoundment is a concrete discharge structure with adjustable stop logs with a minimum elevation of 388 discharging to a 36” reinforced concrete pipe at elevation 386 which discharges to the Ohio River. Stop logs have been placed to elevation 408 and the pond shows no evidence of discharging or accumulating water.

   The impoundment was analyzed for a 1000-year/24-hour storm event using SCS methodologies and a Type II rainfall distribution. Precipitation depth during the design storm was acquired from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates database. Based on the analysis, the spillway structure can manage the flow from the design storm without overtopping the embankment. The analysis was based on the current impoundment configuration, storm

water flows, and contents volume.

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

   The 2026 Annual Inspection indicates the hydraulic structures underlying the base of the Coleman Station Legacy Pond A CCR impoundment or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure. No related deficiencies were observed during the annual inspection.

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

   Due to the configuration and location of the impoundment, stability is not anticipated to be significantly affected by low river pool conditions. Although a portion of the downstream slope of the impoundment embankment is located below the 100-year flood elevation of the Ohio River and may experience encroachment of the adjacent water body during a flood event, stability is not anticipated to be affected by sudden drawdown. A rapid drawdown analysis was completed to assess the downstream slope of the impoundment during such an event and the analysis resulted in an acceptable factor of safety demonstrating that the slope will maintain structural stability during a sudden drawdown.

Sources of Information

Geotechnical and other information provided by Associated Engineers, Inc.

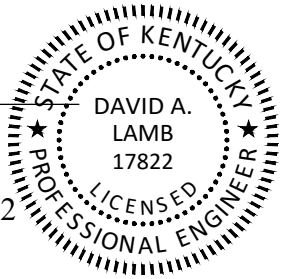
Geotechnical data obtained during geotechnical investigations performed by SM&E in April 2019. Reliance letter Dated April 14, 2026

Engineering design drawings and other information provided by Big Rivers Electric Corporation

United States Geological Survey U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps

Professional Engineer Certification [Per 40 CFR § 257.73]
Coleman Station Legacy Pond A CCR Impoundment Initial Structural Stability Assessment

I hereby certify that myself or an agent under my review has prepared this Initial Structural Stability Assessment (Assessment), and being familiar with the provisions of the final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), attest that this Assessment has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.73. To the best of my knowledge and belief, the information contained in this Assessment is true, complete, and accurate.



David A. Lamb P.E.

State of Kentucky License No. 17822

Date: May 8, 2026

Big Rivers Electric Corp.

Coleman Facility, Hawesville, Kentucky
Attachment A: Pond A Inspection Map

Job Number:	25-0007
Date:	01/30/2026
Scale:	1" = 400'
Drawn By:	D.T.H.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000

Big Rivers Electric Corp.

Coleman Facility, Hawesville, Kentucky

Attachment B: Pond A Inspection Map - USGS TOPO OVERLAY

Job Number:	25-0007
Date:	01/30/2026
Scale:	1" = 400'
Drawn By:	D.T.H.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000

Coleman Station Legacy Pond C CCR Surface Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

May 8, 2026

Prepared By:

ASSOCIATED ENGINEERS, INC.
2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789

Project ID: 26-0144

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

CCR Surface Impoundment Information

Name:	Pond C Legacy CCR Impoundment
Operator:	BREC Coleman Station
Address:	4982 River Road Hawesville, Kentucky 42348

CCR Unit Identification Number: Kentucky State Dam Inventory System ID No. NONE

Qualified Professional Engineer

Name:	David A. Lamb
Company:	Associated Engineers, Inc.
Kentucky P.E. Number:	17822

Regulatory Applicability

As part of the § 257.73 Structural integrity criteria for existing CCR surface impoundments requirements, an owner or operator of an existing CCR surface impoundment must no later than May 8, 2026:

Conduct initial structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

From: VI. Development of the Final Rule - Technical Requirements

In order to ensure the proper upkeep and operation of the CCR unit, the owner or operator must demonstrate that the CCR surface impoundment has been designed, constructed, operated and maintained to provide structural stability. Specifically, the final rule requires the owner or operator to demonstrate that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and water that can be impounded therein. Specifically, the final rule focuses on the critical structural aspects of the CCR surface impoundment that EPA identified in the proposed rule, and identifies the minimum elements that a professional engineer must provide engineering details on or otherwise address. Consistent with the proposal, these demonstrations must be certified by a qualified professional engineer.

In addition to implementing adequate slope protection against erosion, which is a structural stability requirement applicable to all CCR units, the owner or operator of a CCR surface impoundment exceeding the specified size threshold (height of five feet or more and a storage volume of 20 acre-feet or more; or a height of 20 feet or more) must demonstrate that the unit, including any vertical and lateral expansions, is constructed with ‘‘stable foundations and abutments.’’ A stable foundation is an essential element of surface impoundment construction

and prevents differential settlement of the embankment which can result in adverse internal stresses with the embankment cross-section.
Consistent with general engineering construction methodologies, the structural stability assessment also requires the owner or operator to determine whether the CCR surface impoundment has been mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit. Compaction of a dike or embankment is considered essential, as the compaction of soils leads to an increase in density and subsequently strength. Soil mechanics theory has established that the density of a soil corresponds to the moisture content and strength of the soil. The rule requires the owner or operator make this determination for all dikes of a CCR surface impoundment.

The owner or operator must also design, construct, operate, and maintain the CCR surface impoundment spillway or spillways with appropriate material so as to prevent the degradation of the spillway, as well as to ensure that the CCR surface impoundment has adequate spillway capacity to manage the outflow from a specific inflow design flood. In addition, a demonstration must be made that the CCR surface impoundment has been designed, constructed, operated, and maintained with inflow design flood controls and/or spillway capacity to manage peak discharge during and following inflow design floods. This demonstration is required to ensure the CCR surface impoundments will have adequate hydrologic and hydraulic capacity to prevent such failures as overtopping and excessive internal seepage and erosion. Spillways must be designed to withstand discharge from the inflow design flood without losing their structural form and leading to discharge issues, such as erosion or overtopping of the embankment. This requirement is covered in more detail in the hydrologic and hydraulic capacity requirements for CCR surface impoundments section of this rule.

EPA is not requiring a facility to include any demonstration relating to the potential for rapid, or sudden, drawdown loading condition. Rapid or sudden drawdown is a condition in earthen embankments in which the embankment becomes saturated through seepage in an extended high pool elevation in the reservoir. A threat to the embankment emerges when the reservoir pool is drawn down or lowered at a rate significantly higher than the excess poor water pressure within the embankment can diminish. Typically, rapid drawdown scenarios are considered for embankments with reservoirs used for water supply and management, emergency reservoirs, or agricultural supply, in which the reservoir is rapidly discharged from the structure.

A second consideration regarding rapid drawdown, however, is the rapid drawdown of a water body adjacent to the slope of the CCR surface impoundment which may periodically inundate the slope. Many CCR surface impoundments are located in areas in which the downstream slope of the CCR surface impoundment runs down to a lake, stream, or river. In such instances, rapid drawdown must be considered for the stability of the downstream slope of the embankment in the event of a rapid drawdown in the lake, stream, or river pool elevation or stage. Because the water ponded against the downstream slope of the CCR surface impoundment provides a stabilizing load on the slope of the CCR surface impoundment, the rapid or gradual loss of this stabilizing force must be considered in the analysis of the CCR surface impoundment. The rule, therefore, requires that existing and

new CCR surface impoundments and any lateral expansions of such units with a downstream slope that can be inundated by an adjacent water body, such as rivers, streams, or lakes, be constructed with downstream slopes that will maintain structural integrity in events of low pool or rapid drawdown of the adjacent water body. This ensures that the structural integrity of the downstream slope of the CCR surface impoundment will be maintained, even though the conditions of an adjacent surface water body may be outside the owner or operator's control.

Description of Impoundment

An aerial photo of the CCR unit is provided as Attachment A and an excerpt from U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps showing the location of the CCR unit is provided as Attachment B.

The Legacy CCR unit was used for the placement of coal combustion residual material; Primarily slurried bottom ash and fly ash. No CCR was placed in the pond after the coal units were retired in May of 2014. The immediate watershed that drains to the CCR unit, and in which the CCR unit is considered to be located, is unnamed and 90 acres in size.

The CCR unit is a combined incised/earthen embankment structure. Embankments with a maximum height of 15 feet from the perimeter of the structure. The lower portion of the structure is incised. The interior of the pond was used as a borrow area. The Ohio River is located approximately 800 feet east of the structure. Due to surface relief, the toe area of the south dike is subject to flooding. The area was made up historically of cultivated fields, draining to the Ohio River. Underlying preconstruction soils consisted of Quaternary Alluvium. This material is variable in composition, locally consisting of unconsolidated sand, gravel, silt, or clay. Bedrock underlying the site is part of the Pennsylvanian Caseyville and Tradewater formations. Bedrock lies a 115' to 165' below the surface.

The Soil Survey of Daviess and Hancock Counties, Kentucky, published by the U.S. Department of Agriculture Soil Conservations Service, indicates the following soil units to be· present at the surface over the site: Otwell silt loam (OtA), Wheling loam (WnB), Weinbach silt loam 9Wh), Newark silt loam (Ne), Elk silt loam_ (EkB), Jacob silty clay loam (Ja), and the Ginat silt loam (Gn).
Although several units are represented, they exhibit a similar range of properties with regard to texture and engineering. Most are silt loams or silty clay loams, with engineering classification being silt (ML), silty clay (CL-ML), or lean clay (CL). Shrink-swell potential is generally low. This was verified by the geotechnical data obtained during geotechnical investigations performed by SM&E in April 2019. This data was reviewed as part of this report. The final as Built for this structure is dated February 12, 1971. Historic drawings provided by Big Rivers Electric Corporation and reviewed as a part of this report show the pond to be very close to full in August of 1990.

The dike is generally at elevation 405. The dike reaches a maximum height of 15 feet along the west and southern portion of the structure. There is also a rail bed constructed along the west and north portion of the dike. The east side of the structure appears to be incised. The

north side of the structure is contained by fill placed for the plant entrance road and plant construction.

There are numerous transmission lines and associated power poles throughout the pond. The pond has had a soil cover placed and the area is currently vegetated and maintained.

The Inactive Ash Pond C Legacy CCR Impoundment is a combined incised/earthen embankment structure. The pond covers an area of approximately ninety (90) acres; the crest is approximately 8,000 feet long with the earthen embankment being approximately 6,300 feet long with a maximum height of 15 feet. The embankments were built with 2:1 upstream and downstream slopes. A decant is located in the southern area of the pond. The primary outlet structure is a 24-inch diameter, slotted PVC riser connected to a 24" diameter PVC pipe located along the south dike. The decant valve remains closed so no water is discharged.

There is no impounded water in the structure at this time. There are areas inside the structure where the covered and vegetated CCR reaches elevation 412. Based on review of geotechnical data, the CCR reaches an estimated maximum thickness of 19 feet.

This was verified by the geotechnical data obtained during geotechnical investigations performed by SM&E in April 2019. This data was reviewed as part of this report. The final as Built for this structure is dated February 12, 1971. Historic drawings provided by Big Rivers Electric Corporation and reviewed as a part of this report show the pond to be very close to full in August of 1990.

The impoundment has a gated outfall structure located approximately 935 feet east of the southwest corner of the structure. The valve remains closed at all times and the pond area is a vegetated field which absorbs the precipitation from rainfall events.

Results of the Initial Structural Stability Assessment

The initial structural stability assessment has been completed and documents whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. Slope stability analyses were performed using Rocscience Inc. Slide geotechnical software. Slide provides numerical tools to analyze the stability of embankments using limit equilibrium methods.

The assessment documents whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

   The 2026 Annual Inspection indicates that the Coleman Station Legacy Pond C CCR impoundment exhibits stable foundations and abutments. No related deficiencies were observed during the annual inspection.

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond C CCR impoundment exhibits adequate slope protection from erosion, wave action and any effects if sudden drawdown could occur. No related deficiencies were observed during the annual inspection.

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

   Quality assurance and/or testing reports describing the compaction methods and results during embankment construction are not available. A geotechnical exploration was performed to meet the requirements of 40 CFR §257.73(e); the exploration included Standard Penetration Testing (SPT) and acquisition of undisturbed soil samples. Based on the field results and laboratory analyses, the materials within the embankment are sufficient to withstand the anticipated loading conditions.

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond C CCR impoundment embankment exhibits vegetation mostly less than a height of twelve inches above the slope of the dike. This is adequate for inspection purposes.

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

   The impoundment has a gated outfall structure located approximately 935 feet east of the southwest corner of the structure. The outfall is composed of a 24” PVC slotted riser at elevation 401 with a valved 24” discharge pipe. The valve remains closed at all times and the pond area is a vegetated field which absorbs the precipitation from rainfall events. The pond shows no evidence of discharging or accumulating water.

   The impoundment was analyzed for a 100-year/24-hour storm event using SCS

methodologies and a Type II rainfall distribution. Precipitation depth during the design storm was acquired from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates database. Based on the analysis, the spillway structure can manage the flow from the design storm without overtopping the embankment. The analysis was based on the current impoundment configuration, storm water flows, and contents volume.

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

   The 2026 Annual Inspection indicates the hydraulic structures underlying the base of the Coleman Station Legacy Pond C CCR impoundment or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure. No related deficiencies were observed during the annual inspection.

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

   Due to the configuration and location of the impoundment, stability is not anticipated to be significantly affected by low river pool conditions. Although a portion of the downstream slope of the impoundment embankment is located below the 100-year flood elevation of the Ohio River and may experience encroachment of the adjacent water body during a flood event, stability is not anticipated to be affected by sudden drawdown. A rapid drawdown analysis was completed to assess the downstream slope of the impoundment during such an event and the analysis resulted in an acceptable factor of safety demonstrating that the slope will maintain structural stability during a sudden drawdown.

Sources of Information

Geotechnical and other information provided by Associated Engineers, Inc.

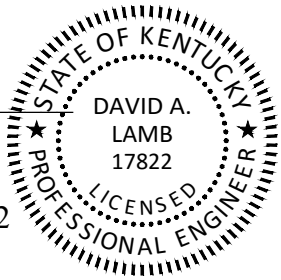
Geotechnical data obtained during geotechnical investigations performed by SM&E in April 2019. Reliance letter Dated April 14, 2026

Engineering design drawings and other information provided by Big Rivers Electric Corporation

United States Geological Survey U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps

Professional Engineer Certification [Per 40 CFR § 257.73]
Coleman Station Legacy Pond C CCR Impoundment Initial Structural Stability Assessment

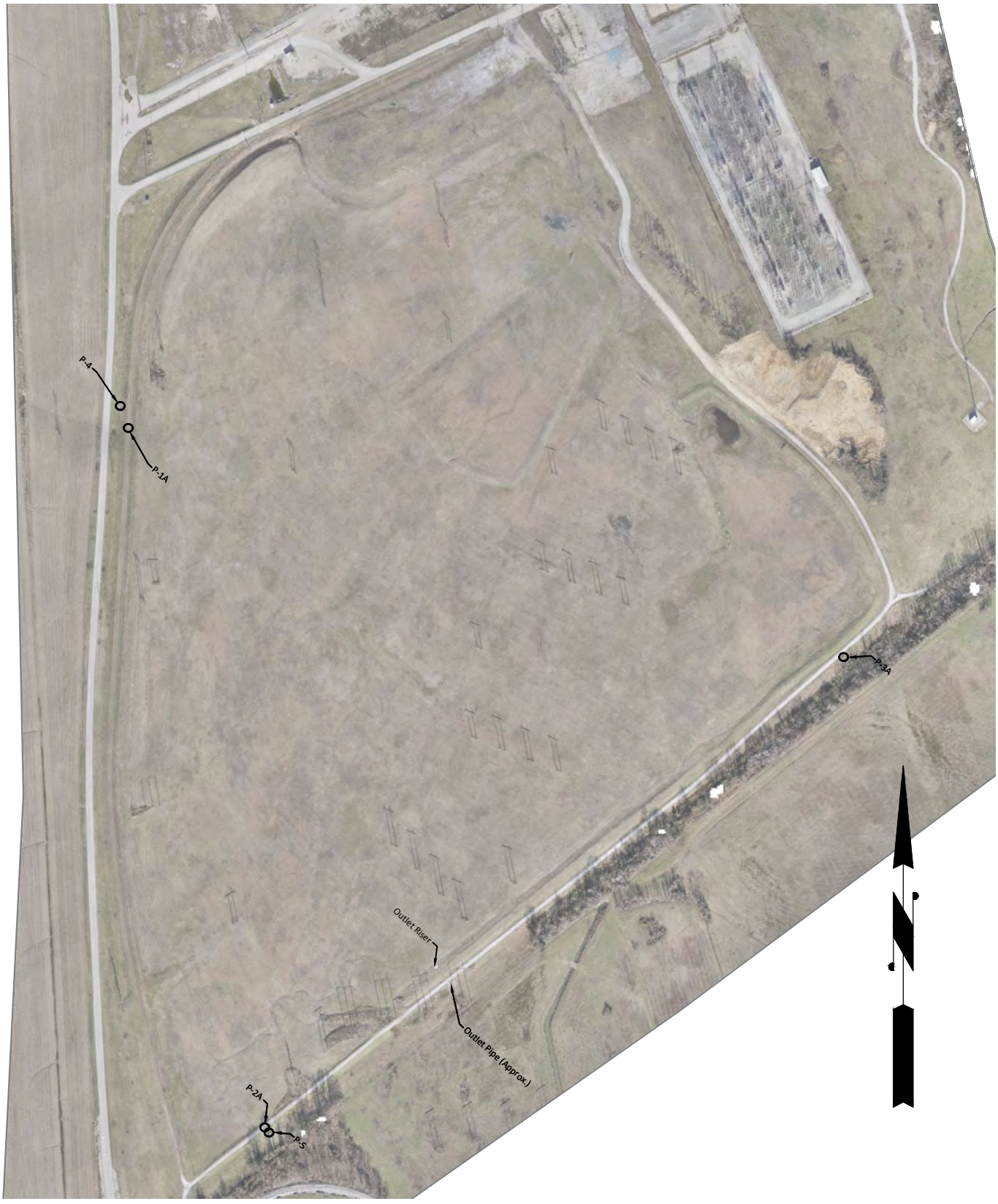
I hereby certify that myself or an agent under my review has prepared this Initial Structural Stability Assessment (Assessment), and being familiar with the provisions of the final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), attest that this Assessment has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.73. To the best of my knowledge and belief, the information contained in this Assessment is true, complete, and accurate.



David A. Lamb P.E.

State of Kentucky License No. 17822

Date: May 8, 2026



Big Rivers Electric Corp.

Coleman Facility, Hawesville, Kentucky
Attachment A: Pond C Inspection Map

Job Number:	25-0007
Date:	01/30/2026
Scale:	1" = 400'
Drawn By:	D.T.H.

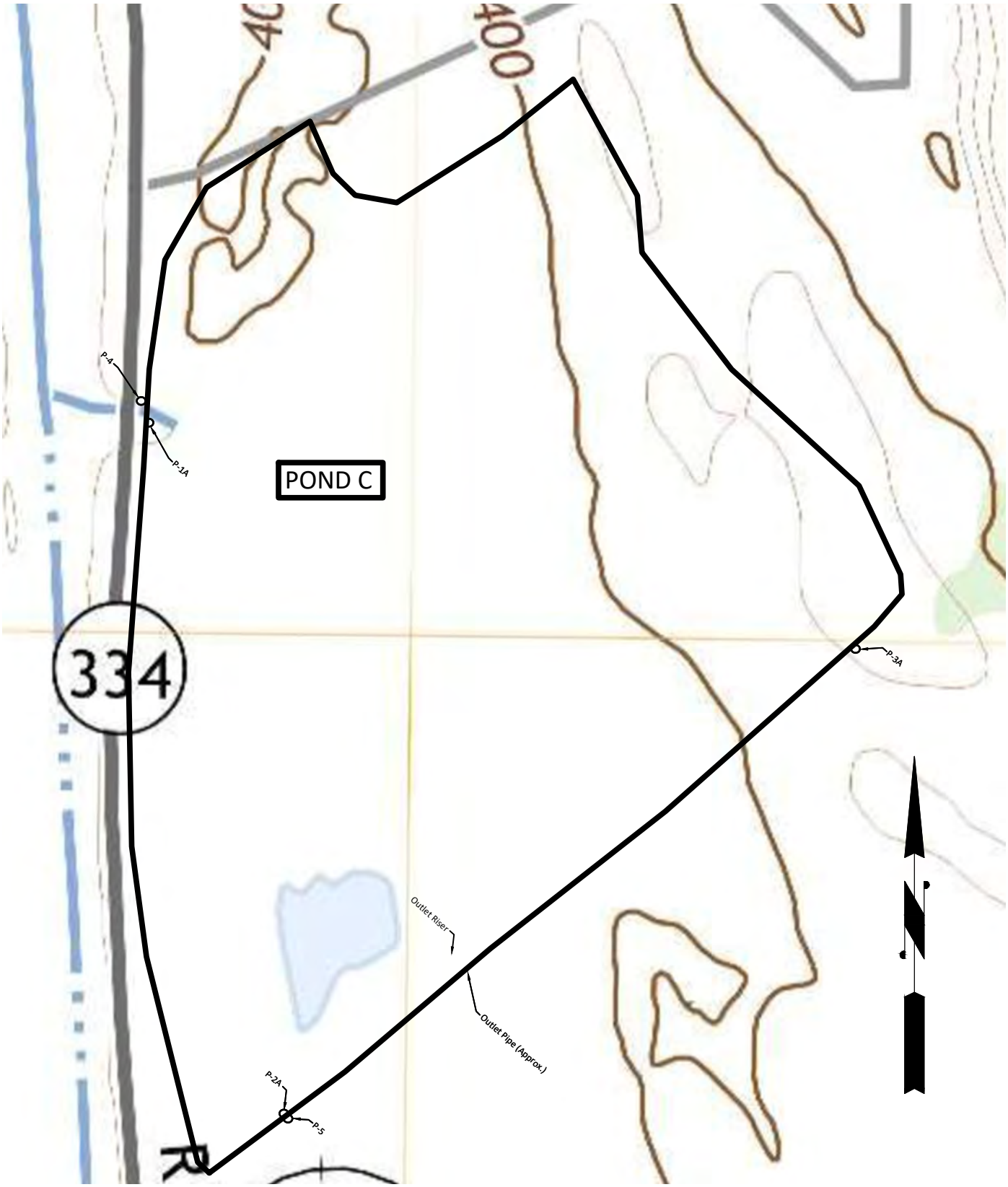
Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. ● Madisonville, KY 42431
Phone: (270) 821-7732 ● Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000



Big Rivers Electric Corp.	Job Number:	25-0007	Revisions:
Coleman Facility, Hawesville, Kentucky	Date:	01/30/2026	
Attachment B: Pond C Inspection Map - USGS TOPO OVERLAY	Scale:	1" = 400'	
	Drawn By:	D.T.H.	

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. ● Madisonville, KY 42431
Phone: (270) 821-7732 ● Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000

Coleman Station Legacy Pond D CCR Surface Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

May 8, 2026

Prepared By:

ASSOCIATED ENGINEERS, INC.
2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789

Project ID: 26-0144

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Structural Integrity Criteria for Existing CCR Surface Impoundments
Initial Structural Stability Assessment

CCR Surface Impoundment Information

Name:	Pond D Legacy CCR Impoundment
Operator:	BREC Coleman Station
Address:	4982 River Road Hawesville, Kentucky 42348

CCR Unit Identification Number: Kentucky State Dam Inventory System ID No. 01255

Qualified Professional Engineer

Name:	David A. Lamb
Company:	Associated Engineers, Inc.
Kentucky P.E. Number:	17822

Regulatory Applicability

As part of the § 257.73 Structural integrity criteria for existing CCR surface impoundments requirements, an owner or operator of an existing CCR surface impoundment must no later than May 8, 2026:

Conduct initial structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

From: VI. Development of the Final Rule - Technical Requirements

In order to ensure the proper upkeep and operation of the CCR unit, the owner or operator must demonstrate that the CCR surface impoundment has been designed, constructed, operated and maintained to provide structural stability. Specifically, the final rule requires the owner or operator to demonstrate that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and water that can be impounded therein. Specifically, the final rule focuses on the critical structural aspects of the CCR surface impoundment that EPA identified in the proposed rule, and identifies the minimum elements that a professional engineer must provide engineering details on or otherwise address. Consistent with the proposal, these demonstrations must be certified by a qualified professional engineer.

In addition to implementing adequate slope protection against erosion, which is a structural stability requirement applicable to all CCR units, the owner or operator of a CCR surface impoundment exceeding the specified size threshold (height of five feet or more and a storage volume of 20 acre-feet or more; or a height of 20 feet or more) must demonstrate that the unit, including any vertical and lateral expansions, is constructed with ‘‘stable foundations and abutments.’’ A stable foundation is an essential element of surface impoundment construction

and prevents differential settlement of the embankment which can result in adverse internal stresses with the embankment cross-section.
Consistent with general engineering construction methodologies, the structural stability assessment also requires the owner or operator to determine whether the CCR surface impoundment has been mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit. Compaction of a dike or embankment is considered essential, as the compaction of soils leads to an increase in density and subsequently strength. Soil mechanics theory has established that the density of a soil corresponds to the moisture content and strength of the soil. The rule requires the owner or operator make this determination for all dikes of a CCR surface impoundment.

The owner or operator must also design, construct, operate, and maintain the CCR surface impoundment spillway or spillways with appropriate material so as to prevent the degradation of the spillway, as well as to ensure that the CCR surface impoundment has adequate spillway capacity to manage the outflow from a specific inflow design flood. In addition, a demonstration must be made that the CCR surface impoundment has been designed, constructed, operated, and maintained with inflow design flood controls and/or spillway capacity to manage peak discharge during and following inflow design floods. This demonstration is required to ensure the CCR surface impoundments will have adequate hydrologic and hydraulic capacity to prevent such failures as overtopping and excessive internal seepage and erosion. Spillways must be designed to withstand discharge from the inflow design flood without losing their structural form and leading to discharge issues, such as erosion or overtopping of the embankment. This requirement is covered in more detail in the hydrologic and hydraulic capacity requirements for CCR surface impoundments section of this rule.

EPA is not requiring a facility to include any demonstration relating to the potential for rapid, or sudden, drawdown loading condition. Rapid or sudden drawdown is a condition in earthen embankments in which the embankment becomes saturated through seepage in an extended high pool elevation in the reservoir. A threat to the embankment emerges when the reservoir pool is drawn down or lowered at a rate significantly higher than the excess poor water pressure within the embankment can diminish. Typically, rapid drawdown scenarios are considered for embankments with reservoirs used for water supply and management, emergency reservoirs, or agricultural supply, in which the reservoir is rapidly discharged from the structure.

A second consideration regarding rapid drawdown, however, is the rapid drawdown of a water body adjacent to the slope of the CCR surface impoundment which may periodically inundate the slope. Many CCR surface impoundments are located in areas in which the downstream slope of the CCR surface impoundment runs down to a lake, stream, or river. In such instances, rapid drawdown must be considered for the stability of the downstream slope of the embankment in the event of a rapid drawdown in the lake, stream, or river pool elevation or stage. Because the water ponded against the downstream slope of the CCR surface impoundment provides a stabilizing load on the slope of the CCR surface impoundment, the rapid or gradual loss of this stabilizing force must be considered in the analysis of the CCR surface impoundment. The rule, therefore, requires that existing and

new CCR surface impoundments and any lateral expansions of such units with a downstream slope that can be inundated by an adjacent water body, such as rivers, streams, or lakes, be constructed with downstream slopes that will maintain structural integrity in events of low pool or rapid drawdown of the adjacent water body. This ensures that the structural integrity of the downstream slope of the CCR surface impoundment will be maintained, even though the conditions of an adjacent surface water body may be outside the owner or operator's control.

Description of Impoundment

An aerial photo of the CCR unit is provided as Attachment A and an excerpt from U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps showing the location of the CCR unit is provided as Attachment B.

The Legacy CCR unit was used for the placement of coal combustion residual material; Primarily gypsum delivered to the pond by truck beginning October 2008. No CCR was placed in the pond after the coal units were retired in May 2014. The immediate watershed that drains to the CCR unit, and in which the CCR unit is located, is unnamed and 83.5 acres in size. This is an elevated structure, and the only inflow is precipitation that falls directly on the structure. Discharge is routed to a drain to the south which discharges directly to the Ohio River

The CCR unit is a combined incised/earthen embankment structure. Embankments form the perimeter of the structure. The lower portion of the structure is incised. The interior of the pond was used as a borrow area. Original ground inside the structure ranged in elevation from elevation 387 to elevation 402. Based on September 22, 2008, As-Build drawing the borrow excavation went as low as elevation 376. The Green River is located approximately 300 feet east of the structure. Due to surface relief, the toe area of the structure is subject to flooding. The area was made up of cultivated fields with a low ridge transecting the area from southwest to northeast, draining northeast to the Ohio River. Underlying preconstruction soils consisted of Quaternary Alluvium. This material is variable in composition, locally consisting of unconsolidated sand, gravel, silt, or clay. Bedrock underlying the site is part of the Pennsylvanian Caseyville and Tradewater formations. Bedrock lies a 115' to 165' below the surface.

The dike is generally at elevation 415. The dike reaches a maximum height of 27 feet along the northwest corner. The east dike reaches a maximum height of approximately 25 feet on the north end and 17 feet at the south end. The south dike height trends from 16 feet at the east end to 21 feet at the west end. The west dike height ranges in height from 25 feet at the south end to 27 feet at the north end. The Associated Engineers, Inc. plans approved in the Dam Construction permit dated January 25, 2005 were reviewed. It should be noted that the approved plans allow for a dam crest elevation of 424. The construction was terminated at elevation 415. CCR primarily composed of dry Gypsum has been placed in the impoundment and a significant portion has been reclaimed for beneficial reuse. The main body of the pond does not impound water at this time. The stormwater portion of the structure on the northeast corner is the only area that impounds water.

Depth of impounded water in the storm water section of the pond is currently approximately 6 feet. The approximate volume of impounded water in the storm water section of the pond is 29,095 cubic yards. Maximum and minimum elevation of CCR is 414 feet and 379 feet, respectively, above mean sea level. These approximate depths and respective elevations are based on the most recent (December 2025) flight derived topographic contours.

Between 2020 and 2023 approximately 919,802 cubic yards of gypsum were removed from the impoundment for beneficial reuse purposes. The remaining storage capacity is approximately 1,599,800 cubic yards. This volume was calculated based on the maximum allowable storage volume and the current volume of CCR stored in the facility based on the most recent survey.

Depths of impounded water and CCR are 6 feet in the Stormwater pond 0.0 feet in the CCR pond area and 33 feet (at respective locations of maximum impounded water and CCR depths). Corresponding elevations of impounded CCR range from 400 feet to 406 feet, above mean sea level. This was verified by geotechnical drilling conducted inside the dry pond in April 2019.

The remaining storage capacity is approximately 1,599,800 cubic yards. This volume was calculated based on the maximum allowable storage volume and the current volume of CCR stored in the facility based on the most recent survey.

The Inactive Ash Pond D Legacy CCR Impoundment is a combined incised/earthen embankment structure. The Pond covers an area of approximately seventy six (76) acres; the crest is approximately 7,200 feet long with a maximum height of 27 feet. The embankments were built with 3:1 upstream and 2:1 downstream slopes.

The CCR portion of impoundment discharge consists of a rip rap trapezoidal channel with a bottom width of 10 feet at elevation 410 feet with 3:1 side slopes to elevation 412. This discharges into the stormwater portion of the impoundment. The discharge from this portion of the impoundment is a valved 18" BCCMP at elevation 401 which enters the 5' diameter precast discharge riser with a 4'x4' inlet at elevation 409.1 feet. The discharge structure has a 36" RCP with Anti-seep collars that penetrates the embankment and discharges at elevation 390.

Results of the Initial Structural Stability Assessment

The initial structural stability assessment has been completed and documents whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. Slope stability analyses were performed using Rocscience Inc. Slide geotechnical software. Slide provides numerical tools to analyze the stability of embankments using limit equilibrium methods.

The assessment documents whether the CCR unit has been designed, constructed, operated, and maintained with:

1. Stable foundations and abutments;

   The 2026 Annual Inspection indicates that the Coleman Station Legacy Pond D CCR impoundment exhibits stable foundations and abutments. No related deficiencies were observed during the annual inspection.

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond D CCR impoundment exhibits adequate slope protection from erosion, wave action and any effects if sudden drawdown could occur. No related deficiencies were observed during the annual inspection.

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

   Quality assurance and/or testing reports describing the compaction methods and results during embankment construction are not available. A geotechnical exploration was performed to meet the requirements of 40 CFR §257.73(e); the exploration included Standard Penetration Testing (SPT) and acquisition of undisturbed soil samples. Based on the field results and laboratory analyses, the materials within the embankment are sufficient to withstand the anticipated loading conditions.

4. Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

   The 2026 Annual Inspection indicates the Coleman Station Legacy Pond D CCR impoundment embankment exhibits vegetation mostly less than a height of twelve inches above the slope of the dike. This is adequate for inspection purposes.

5. A single spillway or a combination of spillways configured as specified in the final rule. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in the final rule and all spillways must be either of non-erodible construction and designed to carry sustained flows; or earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected. The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or 1000-year flood for a significant hazard potential CCR surface impoundment; or 100-year flood for a low hazard potential CCR surface impoundment;

The impoundment has a gated outfall structure located approximately 935 feet east of the southwest corner of the structure. The outfall is composed of a 24" PVC slotted riser at elevation 401 with a valved 24" discharge pipe. The valve remains closed at all times and the pond area is a vegetated field which absorbs the precipitation from rainfall events. The pond shows no evidence of discharging or accumulating water.

The impoundment was analyzed for a 100-year/24-hour storm event using SCS methodologies and a Type II rainfall distribution. Precipitation depth during the design storm was acquired from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates database. Based on the analysis, the spillway structure can manage the flow from the design storm without overtopping the embankment. The analysis was based on the current impoundment configuration, storm water flows, and contents volume.

6. Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

   The 2026 Annual Inspection indicates the hydraulic structures underlying the base of the Coleman Station Legacy Pond D CCR impoundment or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure. No related deficiencies were observed during the annual inspection.

7. For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

   Due to the configuration and location of the impoundment, stability is not anticipated to be significantly affected by low river pool conditions. Although a portion of the downstream slope of the impoundment embankment is located below the 100-year flood elevation of the Ohio River and may experience encroachment of the adjacent water body during a flood event, stability is not anticipated to be affected by sudden drawdown. A rapid drawdown analysis was completed to assess the downstream slope of the impoundment during such an event and the analysis resulted in an acceptable factor of safety demonstrating that the slope will maintain structural stability during a sudden drawdown.

Sources of Information

Geotechnical and other information provided by Associated Engineers, Inc.

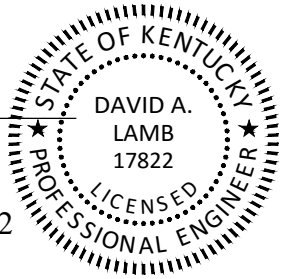
Geotechnical data obtained during geotechnical investigations performed by SM&E in April 2019. Reliance letter Dated April 14, 2026

Engineering design drawings and other information provided by Big Rivers Electric Corporation

United States Geological Survey U.S. Geological Survey (USGS) 7.5 minute Robards and Delaware topographic quadrangle maps

Professional Engineer Certification [Per 40 CFR § 257.73]
Coleman Station Legacy Pond D CCR Impoundment Initial Structural Stability Assessment

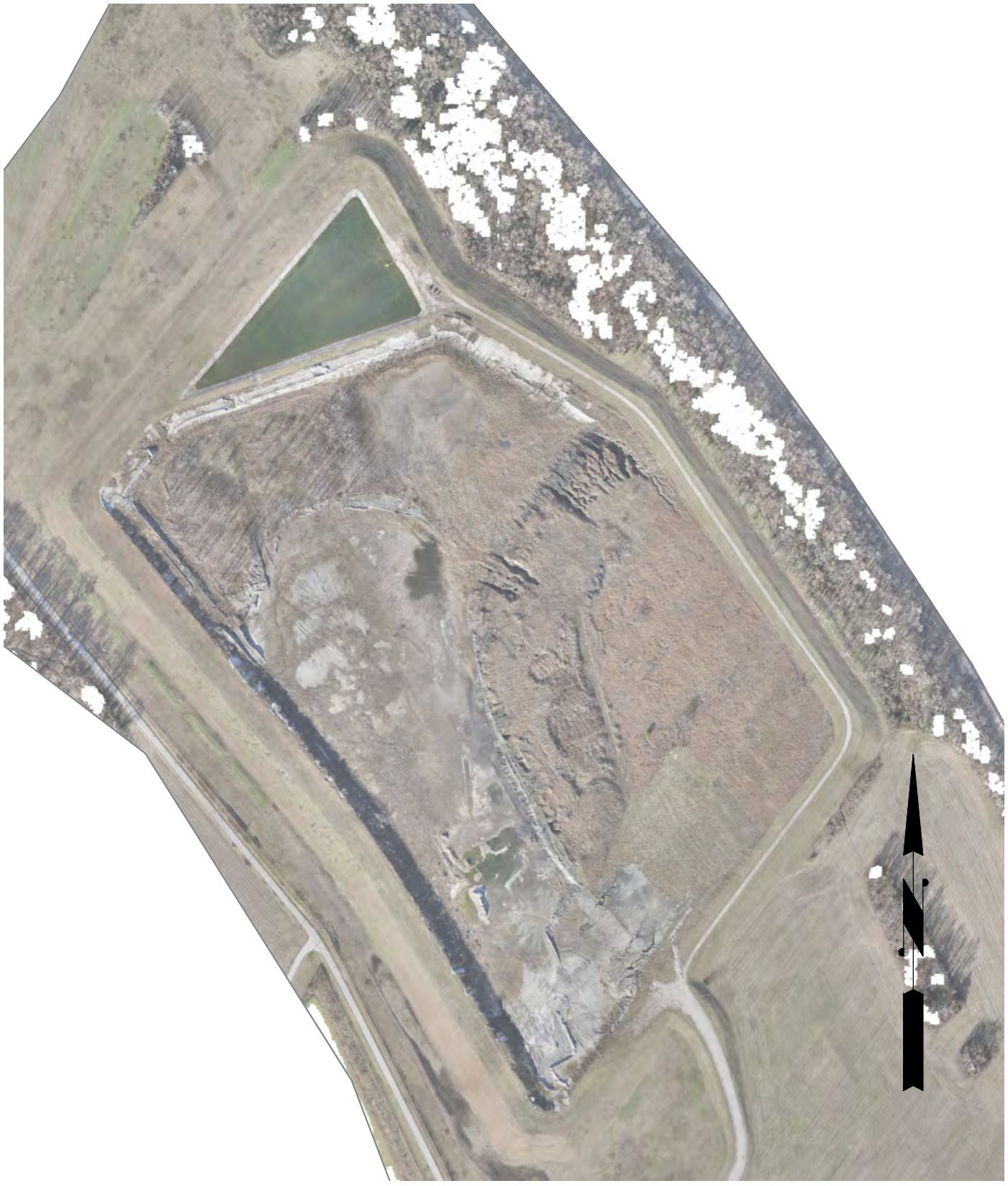
I hereby certify that myself or an agent under my review has prepared this Initial Structural Stability Assessment (Assessment), and being familiar with the provisions of the final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), attest that this Assessment has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.73. To the best of my knowledge and belief, the information contained in this Assessment is true, complete, and accurate.



David A. Lamb P.E.

State of Kentucky License No. 17822

Date: May 8, 2026



Big Rivers Electric Corp.

Coleman Facility, Hawesville, Kentucky
Attachment A: Pond D Inspection Map

Job Number:	25-0007
Date:	01/30/2026
Scale:	1" = 400'
Drawn By:	D.T.H.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000

Big Rivers Electric Corp.

Coleman Facility, Hawesville, Kentucky

Attachment B: Pond D Inspection Map - USGS TOPO OVERLAY

Job Number:	25-0007
Date:	01/30/2026
Scale:	1" = 400'
Drawn By:	D.T.H.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

Owensboro, KY
Phone: (270) 684-8450

2740 North Main St. • Madisonville, KY 42431
Phone: (270) 821-7732 • Fax: (270) 821-7789
www.associatedengineers.com

Lexington, KY
Phone: (859) 286-3000