Ash Pond A Legacy CCR Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Legacy CCR Impoundment 2025 Annual Inspection Report

February 6, 2025

Prepared By:

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

Project ID: 25-0007

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Legacy CCR Impoundment 2025 Annual Inspection Report

CCR Surface Impoundment Information

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

Qualified Professional Engineer

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

Regulatory Applicability

Per 40 CFR §257.83(b), annual inspections by a qualified professional engineer must ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.

Annual inspections of any CCR surface impoundment must include, at a minimum: (1) a review of all previously generated information regarding the status and condition of the CCR unit, including, but not limited to, all operating records and publicly accessible internet site entries, design and construction drawings and other documentation; (2) a thorough visual inspection to identify indications of distress, unusual or adverse behavior, or malfunction of the CCR unit and appurtenant structures; and (3) a thorough visual inspection of hydraulic structures underlying the base of the CCR unit and passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

Additionally, following each annual inspection, the qualified professional engineer must prepare an inspection report which documents the following: (1) any changes in geometry of the impounding structure since the previous annual inspection; (2) the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; (3) the approximate maximum, minimum, and present depth and elevation of the impounded water and CCR since the previous annual inspection; (4) the storage capacity of the impounding structure at the time of inspection; (5) the approximate volume of the impounded water and CCR at the time of the inspection; (6) 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 unit and appurtenant structures; and (7) any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

Inspection Description

This is the first annual inspection report for the Ash Pond A CCR Impoundment pursuant to the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule which became effective April 17, 2015. The inspection was conducted on February 6, 2025 by Brandon Watts of Associated Engineers, Inc. of Madisonville, Kentucky. Weekly (7-day) inspections conducted by Big Rivers Electric Corporation are kept in the facility operating record.

The pond has been dewatered and excavated to the extent that the dam no longer impounds water or CCR. The inspection consisted of a visual assessment of the surface impoundment, embankments and out of service discharge; and began along the east embankment on the access road. The access road is adequately rocked and maintained. The upstream slope had adequate stone cover. The downstream slope was well vegetated with only minor mower wheel tracking present. The open channel spillway was well rocked and clean of overgrown vegetation.

The north embankment crest was well maintained. The downstream slope was well vegetated and well maintained with only minor mower wheel tracking present. The upstream slope had adequate stone cover.

The west embankment crest was well maintained. The downstream slope was well vegetated and well maintained with a few areas of minor mower wheel tracking present. The upstream slope had adequate stone cover.

The south embankment crest was well maintained. The downstream slope was well vegetated and well maintained. The upstream slope had adequate stone cover.

Inspection Report Specifications

(i) Legacy CCR Impoundment Geometry

The Inactive Ash Pond A Legacy CCR Impoundment is a combined incised/earthen embankment structure. The pond covers an area of approximately fourty-eight (48) acres; the embankment is approximately 5,900 feet long with a maximum height of 30 feet. The east embankment faces the Ohio River and has rock toe armoring and a rock downstream slope where the spillway is located. The embankments were built with 2.5:1 upstream and downstream slopes.

There have been no significant changes to the geometry of the impounding structure since the previous (2024) quarterly inspection. No CCR was placed in the pond after the coal units were retired in May 2014.

(ii) Legacy CCR Impoundment Instrumentation

There are six piezometers associated with the Inactive Ash Pond A CCR Surface Impoundment.

(ii) a – Piezometers

*Maximum elevation above mean sea level (AMSL) measured at each piezometer since Jan 1, 2025:

Piezometer ID	Top of Casing Elevation (AMSL)	Depth to Static Water Level	Static Water Elevation* (AMSL)
P-1	414.87	17.50	397.37
P-2	414.90	12.13	402.77
P-3	395.07	17.55	377.52
P-4	394.51	16.76	377.75
P-5	397.33	17.15	380.18
P-6	415.74	8.83	406.91

(iii) Legacy CCR Impoundment General Site Security

Chain link fencing is located at the site access locations with locked gates at all access points from the roadway. The gates are locked using chains and padlocks, possessing the key is the only way to access the site. Warning signage is posted on the fencing and gates.

(iv) Legacy CCR Impoundment Fugitive Dust Control

No visible dust plumes were observed during the inspection.

(v) Legacy CCR Impoundment Structural, Operational, and Safety Items

The inspection found that there were no appearances of an actual or potential structural weakness of the CCR unit, and no existing conditions that would result in the degradation of safety of the CCR unit and appurtenant structures.

Inactive Ash Pond A

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021 | SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station:	Coleman Station	Weather:	Cloudy
Impoundment Name:	Inactive Ash Pond A	Temperature:	50°F
Impoundment ID #:		Inspectors:	B. Watts
Date:	Feb 6, 2025	Signature:	

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
1	**TOP OF DAM**						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☐	☒	☐		☐	☐
2	**UPSTREAM SLOPE**						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Adequate riprap/slope protection	☒	☐	☐		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☒	☐		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

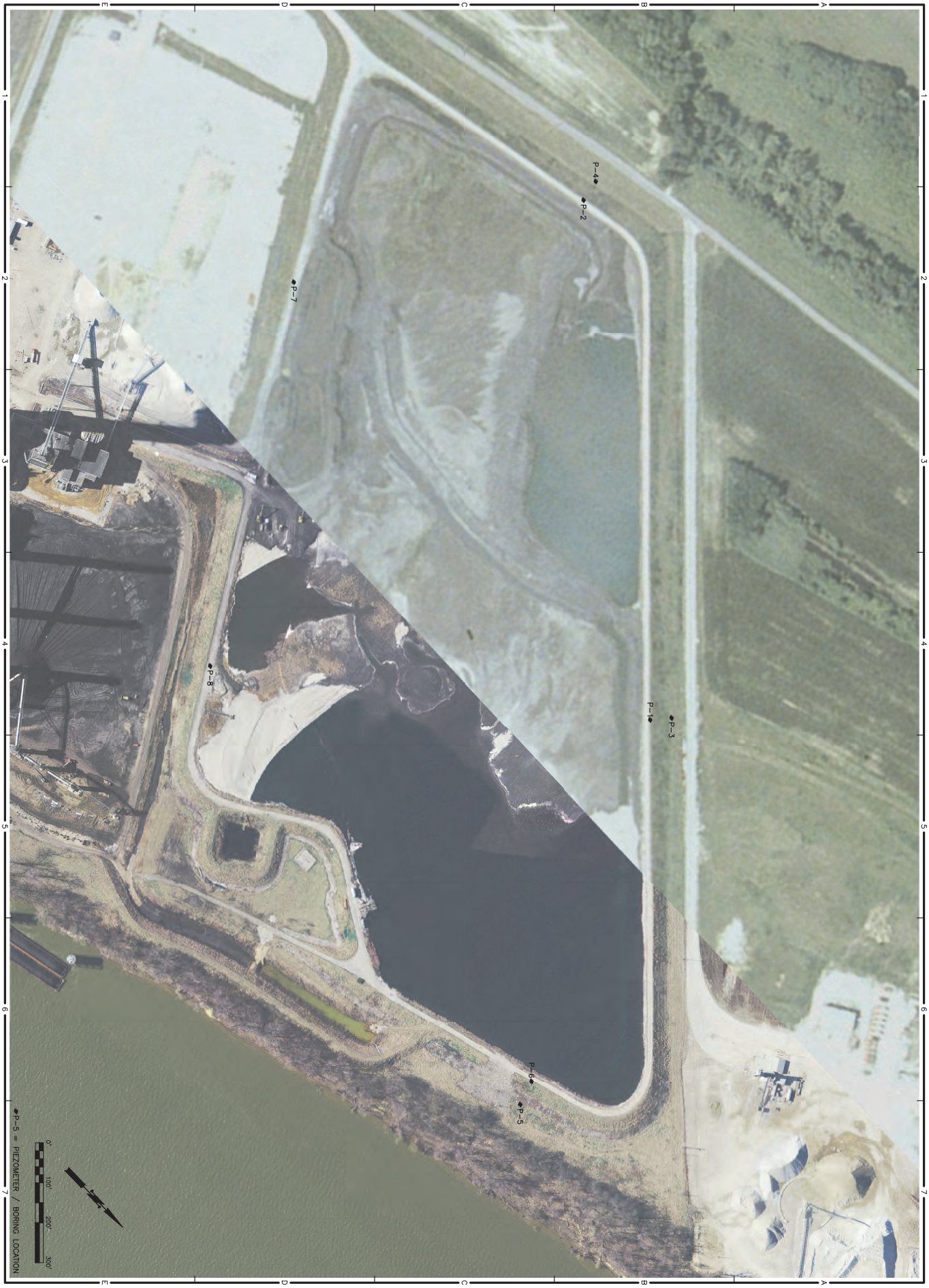
	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☒	☐	☐	Isolated Minor Erosion	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☒	☐	☐	Isolated Mower Wheel tracking	☐	☒
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☐	☒		☐	☐
	Visual differential movement	☐	☐	☒		☐	☐
	Any cracks noted	☐	☐	☒		☐	☐
	Any drainage features obstructed or damaged	☐	☐	☒		☐	☐
	Are drainage features flowing	☐	☐	☒		☐	☐
	Is seepage present	☐	☐	☒		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☐	☐	☒		☐	☐
	Any signs of leakage with the structure or conduit	☐	☐	☒		☐	☐
	Weir in good condition	☐	☐	☒		☐	☐
	Pool Elevation	N/A			Dry	☐	☐
	Any Unusual Fluctuations in Water Level from Previous Inspection	☐	☒	☐		☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☐	☐	☒		☐	☐
	Are the valves/gates broken or bent	☐	☐	☒		☐	☐
	Are the valves/gates corroded or rusted	☐	☐	☒		☐	☐
	Have the valves/gates been maintained	☐	☐	☒		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐		☐	☐

ITEM		ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☒	☐	☐	Not monitored by AEI	☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**GENERAL SITE SECURITY**						
	Site Access Controls In Place and Functioning Correctly	☒	☐	☐	Gate is locked, key required for access	☐	☐
	Perimeter Fencing Intact and Free of Visible Damage	☒	☐	☐		☐	☐
	Warning Signage Present and Legible	☒	☐	☐		☐	☐
13	**FUGITIVE DUST CONTROL**						
	Any Visible Dust Plumes	☐	☒	☐		☐	☐
	Are Dust Suppression Measures Present and Functioning	☐	☐	☒		☐	☐

14	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to Travis Sneed @ 270-832-8915.



SHEET NUMBER 2	BIG RIVERS ELECTRIC CORPORATION KENNETH C. COLEMAN STATION HAWESVILLE, KY SITE PLAN – AERIAL	JOB NO. 10-0203 DRAWN BY P.B. CHECKED BY D.D. DATE 01/28/2011			ASSOCIATED ENGINEERS, INC. ENGINEERS ● GEOLOGISTS ● SURVEYORS

Professional Engineer Certification [Per 40 CFR §257.83(b)]
Inactive Ash Pond A CCR Surface Impoundment
Annual Inspections by a Qualified Professional Engineer

I hereby certify that myself or an agent under my review has prepared this Annual Inspection Report (Report), 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 Report has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.83(b). To the best of my knowledge and belief, the information contained in this Report is true, complete, and accurate.

_____

David A. Lamb, P.E.

State of Kentucky License No. 17822

Date: 2/6/2025

Inactive Ash Pond C Legacy CCR Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Legacy CCR Impoundment 2025 Annual Inspection Report

February 6, 2025

Prepared By:

ASSOCIATED ENGINEERS, INC.
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Project ID: 25-0007

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
CCR Impoundment 2025 Annual Inspection Report

CCR Surface Impoundment Information

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

Qualified Professional Engineer

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

Regulatory Applicability

Per 40 CFR §257.83(b), annual inspections by a qualified professional engineer must ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.

Annual inspections of any CCR surface impoundment must include, at a minimum: (1) a review of all previously generated information regarding the status and condition of the CCR unit, including, but not limited to, all operating records and publicly accessible internet site entries, design and construction drawings and other documentation; (2) a thorough visual inspection to identify indications of distress, unusual or adverse behavior, or malfunction of the CCR unit and appurtenant structures; and (3) a thorough visual inspection of hydraulic structures underlying the base of the CCR unit and passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

Additionally, following each annual inspection, the qualified professional engineer must prepare an inspection report which documents the following: (1) any changes in geometry of the impounding structure since the previous annual inspection; (2) the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; (3) the approximate maximum, minimum, and present depth and elevation of the impounded water and CCR since the previous annual inspection; (4) the storage capacity of the impounding structure at the time of inspection; (5) the approximate volume of the impounded water and CCR at the time of the inspection; (6) 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 unit and appurtenant structures; and (7) any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

Inspection Description

This is the first annual inspection report for the Inactive Ash Pond C CCR Impoundment pursuant to the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule which became effective April 17, 2015. The inspection was conducted on February 6, 2025 by Brandon Watts of Associated Engineers, Inc. of Madisonville, Kentucky. Weekly (7-day) inspections conducted by Big Rivers Electric Corporation are kept in the facility operating record.

The pond has been dewatered, excavated, and capped; the dam no longer impounds water or CCR. The inspection consisted of a visual assessment of the surface impoundment, embankments and out of service discharge; and began along the south embankment on the access road. The access road is adequately rocked and maintained. The upstream embankment slope was well vegetated and maintained. The downstream slope was well vegetated and maintained. The decant pipe inlet was clear of vegetation with no observable damage. The decant pipe valve has been closed, the T handle is missing from the valve mechanism. The decant pipe outlet has overgrowth, but not to the extent that a blockage exists.

The west embankment crest was well maintained. The downstream slope was well vegetated and well maintained with only minor mower wheel tracking present. The upstream slope was well vegetated and maintained.

Inspection Report Specifications

(i) Legacy CCR Impoundment Geometry

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 decant valve has been closed so no water is discharged.

There have been no significant changes to the geometry of the impounding structure since the previous (2024) quarterly inspection. No CCR was placed in the pond after the coal units were retired in May 2014.

(ii) Legacy CCR Impoundment Instrumentation

There are five piezometers associated with the Inactive Ash Pond C Legacy CCR Impoundment.

(ii) a – Piezometers

*Maximum elevation above mean sea level (AMSL) measured at each piezometer since Jan 1, 2025:

Piezometer ID	Top of Casing Elevation (AMSL)	Depth to Static Water Level	Static Water Elevation* (AMSL)
P-1A	405.12	4.63	400.49
P-2A	403.39	7.88	395.51
P-3A	408.78	12.82	395.96
P-4	397.15	21.74	375.41
P-5	400.20	22.60	377.60

(iii) Legacy CCR Impoundment General Site Security

A locked gate is located at the access point from the roadway at the southern corner of the site. The gate is locked using a chain and padlock, possessing the key is the only way to access the site. Warning signage is posted on the gate.

(iv) Legacy CCR Impoundment Fugitive Dust Control

No visible dust plumes were observed during the inspection.

(v) Legacy CCR Impoundment Structural, Operational, and Safety Items

The inspection found that there were no appearances of an actual or potential structural weakness of the CCR unit, and no existing conditions that would result in the degradation of safety of the CCR unit and appurtenant structures.

Inactive Ash Pond C

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021 | SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station:	Coleman Station	Weather:	Cloudy
Impoundment Name:	Inactive Ash Pond C	Temperature:	50°F
Impoundment ID #:		Inspectors:	B. Watts
Date:	Feb 6, 2025	Signature:	

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
1	**TOP OF DAM**						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☐	☒	☐		☐	☐
2	**UPSTREAM SLOPE**						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Adequate riprap/slope protection	☐	☒	☒		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☐	☒		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☒	☐	☐	Isolated Mower Wheel tracking	☐	☒
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☒	☐		☐	☐
	Visual differential movement	☐	☒	☐		☐	☐
	Any cracks noted	☐	☒	☐		☐	☐
	Any drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Are drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☒	☐		☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☐	☐	☒		☐	☐
	Any signs of leakage with the structure or conduit	☐	☒	☐		☐	☐
	Weir in good condition	☐	☐	☒		☐	☐
	Pool Elevation	N/A			Dry	☐	☐
	Any Unusual Fluctuations in Water Level from Previous Inspection	☐	☐	☒		☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☐	☒	☐	T-handle Missing from Valve (Valve is Closed)	☐	☒
	Are the valves/gates broken or bent	☐	☒	☐		☐	☐
	Are the valves/gates corroded or rusted	☐	☒	☐		☐	☐
	Have the valves/gates been maintained	☒	☐	☐		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐	Area of poor drainage/standing water near toe at South end	☐	☒

ITEM		ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☒	☐	☐	Not monitored by AEI	☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**GENERAL SITE SECURITY**						
	Site Access Controls In Place and Functioning Correctly	☒	☐	☐	Gate is locked, key is required for access	☐	☐
	Perimeter Fencing Intact and Free of Visible Damage	☐	☐	☒		☐	☐
	Warning Signage Present and Legible	☒	☐	☐		☐	☐
13	**FUGITIVE DUST CONTROL**						
	Any Visible Dust Plumes	☐	☒	☐		☐	☐
	Are Dust Suppression Measures Present and Functioning	☐	☐	☒		☐	☐

14	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to Travis Sneed @ 270-832-8915.

S:\2011 Project File Folders\110133 Big Rivers Inactive Ash Pond Slope Stability Investigation\DWG\11-0133.dwg

SHEET NUMBER 2	INACTIVE ASH POND C COLEMAN STATION HAWESVILLE, KY	JOB NO. 11-0133	
		DRAWN BY P.B.	ASSOCIATED ENGINEERS, INC. ENGINEERS • GEOLOGISTS • SURVEYORS
		CHECKED BY D.D.	
	PLAN VIEW - AERIAL	DATE 01/03/2012	

Professional Engineer Certification [Per 40 CFR §257.83(b)]
Green CCR Surface Impoundment
Annual Inspections by a Qualified Professional Engineer

I hereby certify that myself or an agent under my review has prepared this Annual Inspection Report (Report), 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 Report has been prepared in accordance with good engineering practices and meets the intent of 40 CFR Part 257.83(b). To the best of my knowledge and belief, the information contained in this Report is true, complete, and accurate.

_____

David A. Lamb, P.E.

State of Kentucky License No. 17822

Date: 2/6/2025

Pond D Legacy CCR Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
Legacy CCR Impoundment 2025 Annual Inspection Report

February 6, 2025

Prepared By:

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

Project ID: 25-0007

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
CCR Impoundment 2025 Annual Inspection Report

CCR Surface Impoundment Information

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

Qualified Professional Engineer

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

Regulatory Applicability

Per 40 CFR §257.83(b), annual inspections by a qualified professional engineer must ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.

Annual inspections of any CCR surface impoundment must include, at a minimum: (1) a review of all previously generated information regarding the status and condition of the CCR unit, including, but not limited to, all operating records and publicly accessible internet site entries, design and construction drawings and other documentation; (2) a thorough visual inspection to identify indications of distress, unusual or adverse behavior, or malfunction of the CCR unit and appurtenant structures; and (3) a thorough visual inspection of hydraulic structures underlying the base of the CCR unit and passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

Additionally, following each annual inspection, the qualified professional engineer must prepare an inspection report which documents the following: (1) any changes in geometry of the impounding structure since the previous annual inspection; (2) the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; (3) the approximate maximum, minimum, and present depth and elevation of the impounded water and CCR since the previous annual inspection; (4) the storage capacity of the impounding structure at the time of inspection; (5) the approximate volume of the impounded water and CCR at the time of the inspection; (6) 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 unit and appurtenant structures; and (7) any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

Inspection Description

This is the first annual inspection report for the Pond D Legacy CCR Impoundment pursuant to the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule which became effective April 17, 2015. The inspection was conducted on February 6, 2025 by Brandon Watts of Associated Engineers, Inc. of Madisonville, Kentucky. Weekly (7-day) inspections conducted by Big Rivers Electric Corporation are kept in the facility operating record.

The inspection consisted of a visual assessment of the surface impoundment, embankments and discharge; and began along the south embankment on the access road. The access road along the crest is adequately rocked and maintained. The upstream slope was vegetated and well maintained. The downstream slope was well vegetated with only minor mower wheel tracking present.

The east embankment crest was well maintained. The downstream slope was well vegetated and well maintained with only minor mower wheel tracking present. The upstream slope was vegetated and well maintained. There's some erosion of the CCR housed inside of the pond. The rock along the upstream slope in the freshwater cell of the pond is well maintained. The decant inlet in the freshwater cell of the pond has no visible damage to it. The decant pipe valve has been turned off. The decant outlet is clear of debris and overgrowth and has no visible damage.

The north embankment crest was well maintained. The downstream slope was well vegetated and well maintained with minor mower wheel tracking present. The upstream slope was well maintained.

The west embankment crest was well maintained. The downstream slope was well vegetated and well maintained. The upstream slope was well vegetated and well maintained.

Inspection Report Specifications

(i) Legacy CCR Impoundment Geometry

The Pond D Legacy CCR Impoundment is a combined incised/earthen embankment structure. The pond is divided into two cells: one cell containing impounded CCR material and one cell impounding freshwater; a rock dam separates the two cells. The pond covers an area of approximately 83.5 acres in total; the cell impounding CCR material is approximately 73.9 acres and the cell impounding freshwater is approximately 9.5 acres. The embankment is approximately 7,900 feet long with a maximum height of 35 feet. The embankments were built with 2:1 upstream and 3:1 downstream slopes. A decant is located

in the cell impounding freshwater; the valve for the decant is shut off as to not allow water to be discharged from the pond.

There have been no significant changes to the geometry of the impounding structure since the previous (2024) quarterly inspection. No CCR was placed in the pond after the coal units were retired in May 2014.

(ii) Legacy CCR Impoundment Instrumentation

There is one water level indicator associated with the Pond D Legacy CCR Impoundment.

(ii) a – Water Surface Level Indicator

The maximum reported water surface elevation since February 2024 is 407.8 feet above mean sea level as measured at a water level indicator located in the southeast corner of the freshwater cell of the impoundment.

(iii) Legacy CCR Impoundment General Site Security

Chain link fencing is located along the perimeter of the site with a locked gate at the access point from the roadway. The gate is locked using a chain and padlock, possessing the key is the only way to access the site. Warning signage is posted on the fencing and gate.

(iv) Legacy CCR Impoundment Fugitive Dust Control

No visible dust plumes were observed during the inspection.

(v) Legacy CCR Impoundment Structural, Operational, and Safety Items

The inspection found that there were no appearances of an actual or potential structural weakness of the CCR unit, and no existing conditions that would result in the degradation of safety of the CCR unit and appurtenant structures.

Pond D

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021

SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station:	Coleman Station	Weather:	Cloudy
Impoundment Name:	Pond D	Temperature:	50°F
Impoundment ID #:		Inspectors:	B. Watts
Date:	Feb 6, 2025	Signature:	

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
1	**TOP OF DAM**						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☒	☐	☐	Minor rutting/potholing with puddling rainwater	☐	☒
2	**UPSTREAM SLOPE**						
	Any erosion	☒	☐	☐	In areas of the CCR only	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Adequate riprap/slope protection	☒	☐	☐		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☒	☐		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☒	☐	☐	Isolated minor erosion	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☒	☐	☐	Isolated mower wheel tracking	☐	☒
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☐	☒		☐	☐
	Visual differential movement	☐	☐	☒		☐	☐
	Any cracks noted	☐	☐	☒		☐	☐
	Any drainage features obstructed or damaged	☐	☐	☒		☐	☐
	Are drainage features flowing	☐	☐	☒		☐	☐
	Is seepage present	☐	☐	☒		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☒	☐		☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☒	☐	☐		☐	☐
	Any signs of leakage with the structure or conduit	☐	☒	☐		☐	☐
	Weir in good condition	☐	☒	☐		☐	☐
	Pool Elevation	407.8’			Top of Concrete Riser: 408.9’	☐	☐
	Any Unusual Fluctuations in Water Level from Previous Inspection	☐	☒	☐		☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☒	☐	☐	Appears operational	☐	☐
	Are the valves/gates broken or bent	☐	☒	☐		☐	☐
	Are the valves/gates corroded or rusted	☐	☒	☐		☐	☐
	Have the valves/gates been maintained	☒	☐	☐		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐		☐	☐

ITEM		ISSUES			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☐	☐	☒		☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**GENERAL SITE SECURITY**						
	Site Access Controls In Place and Functioning Correctly	☒	☐	☐	Gate is locked, key required for access.	☐	☐
	Perimeter Fencing Intact and Free of Visible Damage	☒	☐	☐		☐	☐
	Warning Signage Present and Legible	☒	☐	☐		☐	☐
13	**FUGITIVE DUST CONTROL**						
	Any Visible Dust Plumes	☐	☒	☐		☐	☐
	Are Dust Suppression Measures Present and Functioning	☐	☐	☒		☐	☐

14	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to Travis Sneed @ 270-832-8915.

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Date: 2/6/2025