Big Rivers
ELECTRIC CORPORATION

Reid/HMP&L CCR Surface Impoundment

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
CCR Impoundment 2023 Annual Inspection Report

December 29, 2023

Prepared By:

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

Project ID: 23-0166

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
CCR Impoundment 2023 Annual Inspection Report

CCR Surface Impoundment Information

Name:	Reid/HMP&L CCR Surface Impoundment
Operator:	Sebree Generating Station
Address:	9000 Highway 2096 Robards, Kentucky 42452

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 ninth annual inspection report for the Reid/HMP&L CCR Surface 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 December 19, 2023, by David A. Lamb, P.E. 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 at the northeast corner of the impoundment adjacent to the access road located on the north embankment crest. The inspection revealed that the heavy vegetation noted previous years has been removed. The pond has been dewatered and is actively having CCR material removed from the impoundment and being placed in the onsite landfill. The pond closure activities have resulted in the excavation of CCR material around the perimeter of the dam resulting in no CCR or water being impounded against the dam . The inspection began at the southeast abutment near the discharge structure. The discharge structure was unobstructed and properly maintained. However, due to closure activities the discharge structure has been taken out of service. A pumping system is in place to maintain the dewatered condition of the pond. The water was being maintained approximately 16 feet below the dam crest. The access road continues around the impoundment on the crest of the west and north embankments and is adequately rocked and maintained for construction activities.

The inspection continued to the downstream slope of the south embankment. The south downstream slope was vegetated and generally in good condition. As the inspection progressed west, rutting from tracked equipment was present on the southwest corner of the downstream slope. Areas of saturated ground were observed on the lower slope adjacent to the toe were observed. Signs requiring hand mowing of these area were noted and few if any mower ruts were present in these areas. Minor mower damage was observed along the upper downstream slope at the north end of the west embankment as well as the north end of the north embankment. This does not require and corrective action. The crest of the west embankment was well maintained.

The inspection of the downstream slope of the north embankment noted an area of approximately one-third acre of standing water and very thick vegetation at the east end of the embankment. The crest of the north embankment was in good condition. The surface impoundment no longer receives coal combustion residual (CCR) flow as of February 1,

2019. The northeast corner of the impoundment is currently being used as a construction staging area for pond closure activities.

The south embankment which parallels adjacent cooling towers to the east is the smallest embankment and occurs primarily on the southeast corner of the impoundment. The upstream side is currently bare dirt caused by pond closure related construction activities. The crest and downstream embankment slope were mowed. The impoundment embankment crest supports an access road around the south, west and north perimeters and has adequate gravel cover over the entire length.

The impoundment discharge structure consists of a rectangular concrete drop structure with a variable height steel debris skimmer and the pool elevation can be controlled by adding or removing stop logs. The discharge structure connects to a 24-inch diameter smooth walled metal pipe underground conveyance. The structure is no longer in service. Pumps are in place to maintain water levels well below the discharge structure.

Inspection Report Specifications

(i) CCR Surface Impoundment Geometry

The Reid/HMPL CCR Surface Impoundment is a combined incised/earthen embankment structure. The immediate watershed that drains to the CCR surface impoundment, and in which the CCR surface impoundment is considered to be located, is unnamed and 25.45 acres in size. Embankments form the north, west, south and southeast sides of the impoundment. The northeast side is incised. The original terrain on which the impoundment was constructed generally sloped toward the west. The Green River is located approximately 2,500 feet east of the structure. The embankment reaches its greatest relief of approximately 42 feet on the west side. The impoundment originally received fly ash and bottom ash, but stopped receiving fly ash in approximately 1985 when the Boothe system was placed in operation.

There have been no significant changes to the geometry of the impounding structure since the previous annual inspection. Placement of additional CCR material in the impoundment has concluded and CCR removal for pond closure is under way.

(ii) CCR Surface Impoundment Instrumentation

There are five piezometers and one water level indicator associated with the Reid/HMP&L CCR Surface Impoundment.

(ii) a – Piezometers

*Maximum elevation above mean sea level (AMSL) measured at each piezometer since the 2022 annual inspection report:

Piezometer ID	Northing	Easting	Top of Casing Elevation (AMSL)	Depth to Static Water Level	Static Water Elevation* (AMSL)
P-1A	483464.43	1491086.43	428.95	10.35 feet	418.60
P-2A*	483141.96	1491515.32	428.63	13.9	141.73
P-3A	483772.54	1491306.43	428.75	21.38 feet	407.37
P-4*	483033.84	1491399.12	397.44	4.99	492.45
P-5	483415.93	1490969.80	395.34	9.29 feet	386.05

*P-2A and P-4 have been damaged by pond closure activities.

(ii) b – Water Surface Level Indicator

The maximum water surface elevation since the 2022 annual inspection report is 426.4 feet above mean sea level as measured at a water level indicator located adjacent to the impoundment discharge structure. Closure activities initiated in August 2023 dewatered the pond.

(iii) CCR Surface Impoundment Contents Depths and Elevations

The Reid/HMP&L CCR Surface Impoundment contents depths and elevations are provided below. They are based on: 1) available measured water surface elevations, 2) October 2022 and November 2023 flight derived topographic contours and bathymetric survey data, and 3) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns & McDonnell Engineering Co. October 8, 1971 design plans provided by Big Rivers Electric Corporation).

Elevations are provided as feet above mean sea level and depths are provided as height in feet above the impoundment's design bottom prior to placement of CCR material. All values are rounded off to the nearest tenth of foot.

Minimum depth of impounded water = Not available[1]
Minimum elevation of impounded water = <413.0

Minimum depth of CCR material = 12.5
Minimum elevation of CCR material = 410.0

Maximum depth of impounded water = Not available[1]
Maximum elevation of impounded water = 426.4

Maximum depth of CCR material = 40.7
Maximum elevation of CCR material = 433.0

Present depth of impounded water = 3.1[2]
Present elevation of impounded water = 413.5

Present depth of CCR material = 40.7[3]
Present elevation of CCR material = 428.7[3]

[1]Depth not available due to absence of bathymetric survey data at times of minimum and maximum pool elevations
[2]At location of maximum impounded water depth
[3]At location of maximum CCR material depth

(iv) CCR Surface Impoundment Storage Capacity

The Reid/HMP&L CCR Surface Impoundment storage capacity was estimated to be 758,873 cubic yards (if CCR can be placed to the spillway elevation of 425.8). Volume based on: 1) October 2021 flight derived topographic contours and bathymetric survey data, verified by May 24, 2022 LiDAR and May 18, 2022 Bathometric Survey. 2) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns & McDonnell Engineering Co. October 8, 1971 design plans provided by Big Rivers Electric Corporation). In August 2023 closure activities began and CCR material is being removed from the pond daily and placed in the landfill. Based on November 28, 2023 aerial photography derived data 207,598 cubic yards of CCR material have been removed from the pond increasing its capacity to 966,471 cubic yards (if CCR can be placed to the spillway elevation of 425.8).

(v) CCR Surface Impoundment Contents Volumes

The Reid/HMP&L CCR Surface Impoundment contents volume of impounded water was estimated to be 4,200 cubic yards and volume of CCR material was estimated to be 513,113 cubic yards. Volumes based on: 1) October 2021 flight derived topographic contours and bathymetric survey data, verified by May 24, 2022 LiDAR and May 18, 2022 Bathometric Survey, and October 2023 flight derived topographic contours. 2) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns &

McDonnell Engineering Co. October 8, 1971 design plans provided by Big Rivers Electric Corporation).

(vi) CCR Surface Impoundment Structural, Operational, and Safety Items

The inspection findings consisted of minor maintenance items and there were no appearances of an actual or potential structural weakness of the CCR unit, and no existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures. Due to active closure operations no water or CCR material is impounded against the dam.

(vii) CCR Surface Impoundment Changes

There have been no significant changes to the Reid/HMP&L CCR Surface Impoundment (or impounding structure) since the previous (2022) annual inspection that may have affected the stability or operation of the CCR surface impoundment. It should be noted that the impoundment is in active closure and is no longer receiving CCR or impounding significant quantities of water.

BIG RIVERS ELECTRIC CORPORATION

Reid/HMP&L CCR Surface Impoundment
2023 Annual Inspection Aerial Photo

Job Number:	23-0166
Date:	12/29/2023
Scale:	1" = 200'
Drawn By:	A.E.I.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

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BREC Final Rule CCR Impoundment 2023 Annual Inspection Checklist

Operator:	Sebree Generating Station	Weather:	Overcast
CCR Surface Impoundment:	Reid/HMP&L	Temperature (Degrees F):	74 (high)
Date:	October 25, 2023 December 19, 2023	Inspector/Qualified Person:	David A. Lamb, P.E. (AEI)

	ITEM	STATUS YES	STATUS NO	STATUS N/A	OBSERVATIONS
1	**TOP OF DAM**				
	Visual settlement	☐	☒	☐	
	Misalignment	☐	☒	☐	
	Cracking	☐	☒	☐	
	Access road deterioration (potholes, rutting, etc.)	☐	☒	☐	
2	**UPSTREAM SLOPE**				
	Any erosion	☒	☐	☐	Erosion is present dure to closure activities
	Longitudinal cracks	☐	☒	☐	
	Transverse cracks	☐	☒	☐	
	Adequate vegetative cover	☒	☐	☐	Closure activities change vegetative condition regularly
	Are trees growing on the slope	☐	☒	☐	
	Adequate riprap/slope protection	☒	☐	☐	
	Visual depressions	☐	☒	☐	
	Visual settlement	☐	☒	☐	
	Any stone deterioration	☐	☒	☐	
	Debris or trash present	☐	☒	☐	
3	**DOWNSTREAM SLOPE AND TOE**				
	Any erosion	☒	☐	☐	Minor erosion at isolated areas primarily related to construction activities
	Longitudinal cracks	☐	☒	☐	
	Transverse cracks	☐	☒	☐	
	Adequate vegetative cover	☒	☐	☐	
	Are trees growing on the slope	☐	☒	☐	
	Visual depressions or bulges	☒	☐	☐	Some minor equipment/mower tracking and depressions
	Visual settlement	☐	☒	☐	
	Animal Burrows	☒	☐	☐	Minimal evidence of Animal Burrows Present on South and West Slope
	Are boils present at the toe or slopes	☐	☒	☐	
	Are drainage features obstructed or damaged	☐	☒	☐	
	Are drainage features flowing	☐	☒	☐	
	Is seepage present	☒	☐	☐	Wet areas from seepage along portions of south, west and north embankments

ITEM	STATUS	OBSERVATIONS

	ITEM	STATUS			OBSERVATIONS
		YES	NO	N/A	
	Is seepage or discharge carrying sediment	☐	☒	☐	
	Soft or spongy zones present	☒	☐	☐	Areas of soft ground along portions of south, west and north embankment toe
4	**ABUTMENTS**				
	Any erosion	☐	☒	☐	
	Visual differential movement	☐	☒	☐	
	Any cracks	☐	☒	☐	
	Are drainage features flowing	☐	☒	☐	
	Is seepage present	☐	☒	☐	
	Is seepage or discharge carrying sediment	☐	☐	☒	
5	**PRINCIPAL SPILLWAY**				
	Any deterioration of the spillway structure	☐	☒	☐	
	Any deterioration of the spillway conduit	☐	☐	☒	Spillway has been taken out of service due to closure activities
	Spillway clear from obstructions	☒	☐	☐	
	Is the spillway functioning and discharging correctly	☐	☐	☒	Spillway has been taken out of service due to closure activities
	Trash racks or skimmer operational	☐	☐	☒	
	Any signs of leakage with the structure or conduit	☐	☒	☐	
	Abnormally high or low pool elevation	☒	☐	☐	Pool is being maintained at a very low level to support closure
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	**HYDRAULIC STRUCTURES UNDER/THROUGH DAM**				
	Hydraulic structures under/through embankment are in safe and reliable operating condition	☐	☐	☒	Closure activities have removed the structure from service
	Abnormal flow	☐	☐	☒	
	Abnormally colored discharge	☐	☐	☒	
	Debris or sediment in discharge	☐	☐	☒	
9	**SEEPAGE**				
	Seepage from toe drain	☒	☐	☐	Wet saturated ground along embankment toe; no discrete discharge visible

ITEM	STATUS			OBSERVATIONS
	YES	NO	N/A	
Seepage from abutment drain	☐	☐	☒	
Seepage from blanket drain	☒	☐	☐	Wet saturated ground along embankment toe; no discrete visible discharge
Seepage from slope areas	☐	☒	☐	

DEFICIENCIES AND MAINTENANCE ITEMS

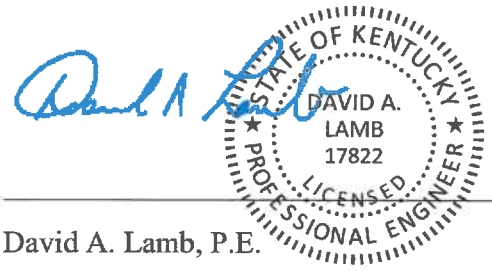
The inspection did not identify any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures. The inspection findings consisted of minor maintenance items that were not observed to be signs or potential signs of significant structural weakness. Ongoing closure activities will resolve all conditions observed.

The current trapping program for borrowing animals appears to be effective currently. Animal activity is continually monitored and adjustments in trapping effort are ongoing.

The majority of the seepage observed at the toe of the embankments can be attributed to controlled discharges via the sand fill underdrain. Small, isolated areas of saturated ground were observed up slope form the underdrain area, but no areas of seepage were observed above the bottom third of the slope at the time of the inspection. The condition observed consisted of wet saturated ground with no discrete discharge visible. Additionally, the vegetative cover in these areas appeared to be unaffected by the condition with no visible discoloration of the surrounding ground surface. Ongoing closure activities will resolve all conditions observed.

Professional Engineer Certification [Per 40 CFR §257.83(b)]
Reid/HMP&L 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: 12/29/2023

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Your Touchstone Energy® Cooperative

Green CCR Surface Impoundment

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CCR Surface Impoundment Information

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Operator:	Sebree Generating Station
Address:	9000 Highway 2096 Robards, Kentucky 42452

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 ninth annual inspection report for the Green CCR Surface 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 December 19, 2023 by David A. Lamb, P.E. of Associated Engineers, Inc. of Madisonville, Kentucky. Weekly (7-day) inspections conducted by Big Rivers Electric Corporation are kept in the facility operating record.

It should be noted that a contractor is currently on-site executing implementation of the closure plan for this facility. The pond has been dewatered and excavated to the extent that the spillway is no longer functional, and 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 at the southwest corner of the impoundment on the embankment crest access road. The crest access road is adequately rocked and maintained. The upstream embankment slope was bare due to ongoing closure activities. The downstream slope at the southwest corner of the impoundment had areas that are sparsely vegetated. Thick vegetation adjacent to the discharge pipe outlets (no longer operational at the time of inspection) covered the ground in this area. Additionally, minor erosion and mower wheel tracking was present along the downstream slope. Otherwise, the south embankment downstream slope was generally well vegetated and mowed. Limited small animal burrows were observed on the mid-slope and lower downstream slope of the central portion and east end of the south embankment. Moderate erosion was observed along the access roadway along the southeast groin of the downstream embankment slope. Ther was fresh disturbance in this area related to the construction activity currently under way at the site. Dense vegetation along the ditch located adjacent to the south embankment toe that directs drainage east towards the Green River had been mowed and no water was present at the time of the inspection.

The east side of the impoundment interior contains dewatered CCR material at or above the pool elevation. This area is currently utilized to stage construction activities. Active management of CCR material was observed where stored above the pool elevation. The east crest access road is not well separated from interior CCR storage areas. Areas of exposed CCR material and minor erosion were observed on the east embankment downstream slope. At the time of the inspection the contractor was actively removing CCR from the pond to facilitate closure activities.

The northeast, north and northwest portions of the impoundment are incised, and the upstream slopes were observed to be disturbed by closure activities.

The west embankment crest and upstream slope was generally observed to be disturbed by the closure activities. CCR material has been removed down to the original soil in this area. Moderate erosion and equipment tracking were observed throughout the impoundment. This was related to the active closure operation that was under way. This activity does not pose a stability issue with the structure.

The south embankment contains the discharge structure (two corrugated steel discharge pipes; each 30 inches in diameter). The upstream end of the discharge structure has a concrete common headwall. Due to closure activities the pool was being maintained in excess of 30 feet below the discharge elevation in the southern portion of the impoundment. The pipe conveyances are no longer active. Pumps are utilized to maintain the area while construction activities are advances.

Inspection Report Specifications

(i) CCR Surface Impoundment Geometry

The Green CCR Surface Impoundment is a combined incised/earthen embankment structure. The immediate watershed that drains to the CCR surface impoundment, and in which the CCR surface impoundment is considered to be located, is unnamed and 54.13 acres in size. Embankments form the west, south and east sides of the impoundment and the north side is incised. The original terrain on which the impoundment was constructed consisted of small stream valleys draining eastward to the Green River. Most of the central portion of the south dike was constructed on a subdued ridge and the toe of the outboard slope intersected a lower drainage area. The Green River is located approximately 400 feet east of the structure. The west dike is generally less than five feet in height and the south dike reaches a maximum height of 19.5 feet. The east dike reaches a maximum height of approximately eight feet and is buttressed with a secondary parallel embankment that serves as a 40-foot-wide roadway. Bottom ash has been placed above the normal pool along the inboard side, essentially creating reclaimed land which is currently used as a construction staging area.

There have been no significant changes to the geometry of the impounding structure since the previous (2022) annual inspection. Placement of additional CCR material in the impoundment ceased on April 4, 2022 when the coal fired unit was retired. CCR material is currently being removed from the impoundment and placed in the adjacent landfill as a closure plan is being implemented.

(ii) CCR Surface Impoundment Instrumentation

There are five piezometers and two water level indicators associated with the Green CCR Surface Impoundment.

(ii) a – Piezometers

*Maximum elevation above mean sea level (AMSL) measured at each piezometer since the 2022 annual inspection report:

Piezometer ID	Northing	Easting	Top of Casing Elevation (AMSL)	Depth to Static Water Level	Static Water Elevation* (AMSL)
P-1A	480202.55	1492104.21	396.17	12.54 feet	383.63
P-2A	480186.48	1492464.48	395.98	14.71 feet	381.27
P-3A	480175.11	1492692.75	395.91	damaged	damaged
P-6	480122.51	1492462.58	379.33	6.49 feet	372.84
P-7	480137.28	1492099.00	380.26	4.96 feet	375.30

(ii) b – Water Surface Level Indicator

The maximum water surface elevation since the 2022 annual inspection report is 392.0 feet above mean sea level as measured at a water level indicator located in the southwest corner of the impoundment. The pond has now been dewatered and water elevation in this area is being maintained below 365.0 feet above mean sea level.

(iii) CCR Surface Impoundment Contents Depths and Elevations

The Green CCR Surface Impoundment contents depths and elevations are provided below. They are based on: 1) available measured water surface elevations, 2) December 2023 flight derived topographic contours, and 3) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns and Roe, Inc. Engineering and Consultants June 30, 1978 design plans provided by Big Rivers Electric Corporation).

Elevations are provided as feet above mean sea level and depths are provided as height in feet above the impoundment's design bottom prior to placement of CCR material. All values are rounded off to the nearest tenth of foot.

Minimum depth of impounded water = Not available[1]
Minimum elevation of impounded water = 358

Minimum depth of CCR material = 0
Minimum elevation of CCR material = NA CCR completely removed in areas.

Maximum depth of impounded water = Not available[1]
Maximum elevation of impounded water = 385.0 (Isolated pool on north end of pond)

Maximum depth of CCR material = 37
Maximum elevation of CCR material = 397

Present depth of impounded water = 5.5[2]
Present elevation of impounded water = 385.0

Present depth of CCR material = 37.0[3]
Present elevation of CCR material = 397.0[3]

[1]Depth not available due to absence of bathymetric survey data at times of minimum and maximum pool elevations
[2]At location of maximum impounded water depth
[3]At location of maximum CCR material depth

(iv) CCR Surface Impoundment Storage Capacity

The Green CCR Surface Impoundment storage capacity was estimated to be 976,165 cubic yards (if CCR can be placed to the spillway elevation of 393.8). Volume based on: 1) December 2023 flight derived topographic contours and bathymetric survey data, and 2) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns and Roe, Inc. Engineering and Consultants June 30, 1978 design plans provided by Big Rivers Electric Corporation).

(v) CCR Surface Impoundment Contents Volumes

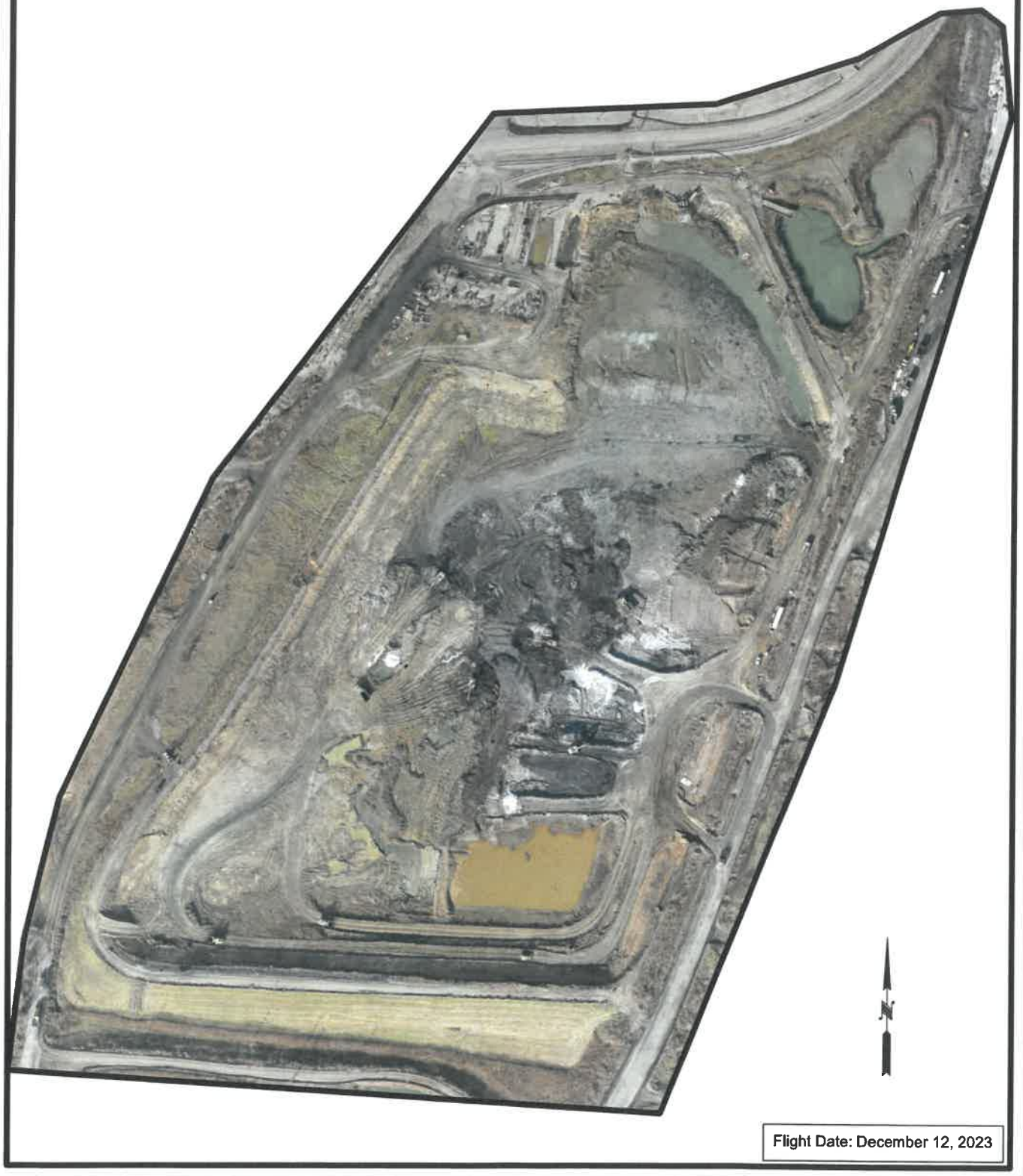
The Green CCR Surface Impoundment contents volume of impounded water was estimated to be 6,508 cubic yards and volume of CCR material was estimated to be 261,294 cubic yards. Volumes based on: 1) December 2023 flight derived topographic contours and bathymetric survey data, and 2) best available as-built design data for the impoundment prior to placement of CCR material (i.e. the Burns and Roe, Inc. Engineering and Consultants June 30, 1978 design plans provided by Big Rivers Electric Corporation).

(vi) CCR Surface Impoundment Structural, Operational, and Safety Items

The inspection findings consisted of maintenance items primarily related to active construction activities, and there were no appearances of an actual or potential structural weakness of the CCR unit, and no existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.

(vii) CCR Surface Impoundment Changes

There have been no significant changes to the Green CCR Surface Impoundment (or impounding structure) since the previous (2022) annual inspection that may have affected the stability or operation of the CCR surface impoundment.



Flight Date: December 12, 2023

BIG RIVERS ELECTRIC CORPORATION

Green CCR Surface Impoundment
2023 Annual Inspection Aerial Photo

Job Number:	23-0165
Date:	12/29/2023
Scale:	1" = 250'
Drawn By:	A.E.I.

Revisions:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

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BREC Final Rule CCR Impoundment 2023 Annual Inspection Checklist

Operator:	Sebree Generating Station			Weather:	Overcast
CCR Surface Impoundment:	Green			Temperature (Degrees F):	44 (high)
Date:	December 19, 2023			Inspector/Qualified Person:	David Lamb P.E. (AEI)

	ITEM	STATUS			OBSERVATIONS
		YES	NO	N/A	
1	**TOP OF DAM**				
	Visual settlement	☐	☒	☐	
	Misalignment	☐	☒	☐	
	Cracking	☐	☒	☐	
	Access road deterioration (potholes, rutting, etc.)	☒	☐	☐	Minor rutting along north and west side. Primarily Construction related
2	**UPSTREAM SLOPE**				
	Any erosion	☒	☐	☐	Minor erosion at isolated areas
	Longitudinal cracks	☐	☒	☐	
	Transverse cracks	☐	☒	☐	
	Adequate vegetative cover	☐	☒	☐	Vegetative cover on interior removed as part of construction activity
	Are trees growing on the slope	☐	☒	☐	
	Adequate riprap/slope protection	☒	☐	☐	
	Visual depressions	☐	☒	☐	
	Visual settlement	☐	☒	☐	
	Any stone deterioration	☐	☒	☐	
	Debris or trash present	☐	☒	☐	
3	**DOWNSTREAM SLOPE AND TOE**				
	Any erosion	☒	☐	☐	Minor erosion east embankment
	Longitudinal cracks	☐	☒	☐	
	Transverse cracks	☐	☒	☐	
	Adequate vegetative cover	☒	☐	☐	Isolated bare areas
	Are trees growing on the slope	☐	☒	☐	
	Visual depressions or bulges	☒	☐	☐	Areas of minor tracking/rutting from tractor and mower tires
	Visual settlement	☐	☒	☐	
	Animal Burrows	☒	☐	☐	Minimal small animal burrows on south embankment
	Are boils present at the toe or slopes	☐	☒	☐	
	Are drainage features obstructed or damaged	☐	☒	☐	
	Are drainage features flowing	☐	☒	☐	
	Is seepage present	☐	☒	☐	

	ITEM	STATUS			OBSERVATIONS
		YES	NO	N/A	
	Is seepage or discharge carrying sediment	☐	☐	☒	
	Soft or spongy zones present	☐	☒	☐	
4	**ABUTMENTS**				
	Any erosion	☒	☐	☐	Minor erosion on southeast downstream groin
	Visual differential movement	☐	☒	☐	
	Any cracks	☐	☒	☐	
	Are drainage features flowing	☐	☒	☐	
	Is seepage present	☐	☒	☐	
	Is seepage or discharge carrying sediment	☐	☐	☒	
5	**PRINCIPAL SPILLWAY**				
	Any deterioration of the spillway structure	☐	☒	☐	
	Any deterioration of the spillway conduit	☐	☒	☐	
	Spillway clear from obstructions	☒	☐	☐	
	Is the spillway functioning and discharging correctly	☐	☒	☐	Spillway appears functional but not discharging at time of inspection
	Trash racks or skimmer operational	☐	☐	☒	
	Any signs of leakage with the structure or conduit	☐	☒	☐	
	Abnormally high or low pool elevation	☒	☐	☐	Low pool elevation is being maintained
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	**HYDRAULIC STRUCTURES UNDER/THROUGH DAM**				
	Hydraulic structures under/through embankment are in safe and reliable operating condition	☒	☐	☐	
	Abnormal flow	☐	☐	☒	Structure is no longer in use
	Abnormally colored discharge	☐	☐	☒	
	Debris or sediment in discharge	☐	☐	☒	
9	**SEEPAGE**				
	Seepage from toe drain	☐	☐	☒	

ITEM	STATUS			OBSERVATIONS
	YES	NO	N/A	
Seepage from abutment drain	☐	☐	☒	
Seepage from blanket drain	☐	☐	☒	
Seepage from slope areas	☐	☒	☐	

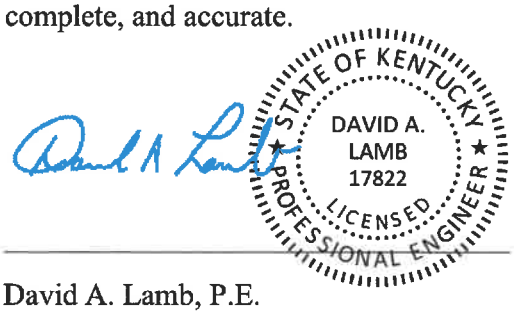
DEFICIENCIES AND MAINTENANCE ITEMS

The inspection did not identify any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures. The inspection findings consisted of maintenance items that were not observed to be signs or potential signs of significant structural weakness.

The structure is currently being removed from service. At this time no water or CCR is impounded against the dam.

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: 12/29/2023