




Your Touchstone Energy® Cooperative 

D.B. Wilson Phase II CCR Landfill

Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule CCR Landfill 2017 Annual Inspection Report

January 05, 2022

Prepared By:



Project ID: 22-0233

Big Rivers Electric Corporation
Disposal of Coal Combustion Residuals (CCR) from Electric Utilities Final Rule
CCR Landfill 2022 Annual Inspection Report

CCR Landfill Information

Name: D.B. Wilson CCR Landfill
Operator: D.B. Wilson Generating Station
Address: 5663 State Route 85 West
Centertown, KY 42328

Qualified Professional Engineer

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

Regulatory Applicability

Per 40 CFR §257.84(b), annual inspections by a qualified professional engineer must ensure that the design, construction, operation, and maintenance of the CCR landfill is consistent with recognized and generally accepted good engineering standards.

Annual inspections of any CCR landfill must include, at a minimum: (1) a review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and (2) a visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

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 structure since the previous annual inspection, (2) the approximate volume of CCR at the time of the inspection, (3) 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 (4) any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

Inspection Description

This is the eighth annual inspection report for the D.B. Wilson CCR Landfill 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 13, 2022 by David 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 landfill and associated drainage control features; and began at the southeast end of the landfill along the lower slope, toe and runoff control ditch. At the time of the inspection the south end of the landfill and top are working faces. The runoff ditch slopes had areas of minor erosion and poor vegetation. The inspection continued along the lower slope which transitioned into the first bench which was vegetated and in generally good condition. Limited areas of the slope were sparsely vegetated, and minor erosion rills were present along with mower tracks. The inspection continued north. The second down drain from the northeast corner has an area of ponded water at the outlet. There is a slightly depressed area which ponds water on the third bench of the east side above the northern most down drain. Vegetation on the east slope was generally good with limited areas of sparse vegetation.

Vegetation on the north slope and associated drainage controls was observed to be in generally good condition. There were limited areas of sparse vegetation, and the northwest corner appears to have been revegetated this growing season.

Vegetation on the northern 1050 +/- feet of the west slope was observed to be in generally good condition with minimal areas of sparse vegetation. The remaining west slope is currently active or dormant disposal area.

The interior of the active landfill was inspected and appeared in good operating condition. An approximate three acre area at the north end of the landfill top had been revegetated to control drainage; vegetation was poorly developed in places and minor depressions result in shallow areas of ponding during and immediately following precipitation events. .

Inspection Report Specifications

(i) CCR Landfill Geometry

The D.B. Wilson CCR Landfill is used for the placement of coal combustion residual material; currently fly ash, bottom ash and related material. The landfill is raised above adjacent ground to a maximum elevation of approximately 546.5 feet above mean sea level. The original ground surface within the landfill footprint was irregular and the predominant

features were the headwaters of Elk Creek and small stream valleys draining south. Other small tributaries drained west towards the Green River and north towards the Rough River.

Changes to the landfill geometry since the previous (2021) annual inspection include the placement of additional CCR and cover material on the landfill. No changes were made to the footprint of the unit.

(ii) CCR Landfill Volume

The total volume of CCR material contained in the D.B. Wilson CCR Landfill was estimated to be 3.957 million cubic yards. This volume was calculated from available baseline topography compared to December 7, 2022 aerial Lidar surveyed topographic contours.

(iii) CCR Landfill Structural, Operational, and Safety Items

No deficiencies or disrupting conditions that would require immediate measures to remedy were identified in the inspection. The inspection findings consisted of maintenance items that were not observed to be signs or potential signs of significant structural weakness. These items will be addressed as a part of ongoing maintenance.

(iv) CCR Landfill Changes

There have been no changes to the D.B. Wilson CCR Landfill since the previous (2021) annual inspection that may have the potential to affect the stability or operation of the CCR unit. Additional CCR material and soil cover have been placed since the 2022 CCR Rule Annual Landfill Inspection Report.



Flight Date: December 7, 2022

BIG RIVERS ELECTRIC CORPORATION

DB Wilson CCR Landfill
 2022 Annual Inspection Aerial Photo

Job Number:	22-0233	Revisions:
Date:	01/06/2023	
Scale:	1" = 600'	
Drawn By:	A.E.I.	

BREC Final Rule CCR Landfill 2022 Annual Inspection Checklist

Operator: D.B. Wilson Generating Station				Weather: Clear	
CCR Landfill: D.B. Wilson				Temperature (Degrees F): 54 (high)	
Date: December 13, 2022				Inspector/Qualified Person: David Lamb P.E. (AEI)	
ITEM		STATUS			OBSERVATIONS
		YES	NO	N/A	
1	CONDITION OF INACTIVE AREA				
	Access road deterioration (potholes, rutting, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Any erosion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Some surficial erosion/rills in cover material and perimeter ditch
	Longitudinal cracks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Transverse cracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Visual depressions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Some minor low areas in bench flowlines and longitudinal tracking from tractor/mower tires
	Visual settlement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Bulging or slumping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Any drainage features obstructed or damaged	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Basins and runoff ditches have eroded areas and contain sediment in areas
	Are drainage features flowing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is seepage present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minor seepage present on east side toe and lower slope
	Is seepage or discharge carrying sediment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Adequate vegetative cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There are limited areas of sparse vegetation and invasive species
	Are trees growing on the slope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Are there any animal burrows	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Any stone deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Adequate riprap/slope protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Debris or trash present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Is there exposed CCR material	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	CONDITION OF ACTIVE AREA				
	Access road deterioration (potholes, rutting, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Any erosion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minor to moderate erosion on active disposal areas and haul roads
	Any cracks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Any slides	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Visual depressions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		STATUS			OBSERVATIONS


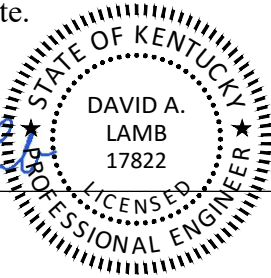
	YES	NO	N/A	
Visual settlement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Bulging or slumping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Any drainage features obstructed or damaged	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is seepage present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Along toe of east slope
Is seepage or discharge carrying sediment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Debris or trash present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3 LINER AND LEACHATE COLLECTION SYSTEM				
Are liners intact and being installed correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the leachate collection operating correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the leachate collection pond/storage functioning correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any slope/bank erosion on pond	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there any animal burrows on pond	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the spillway functioning and discharging correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4 RUN-ON/RUNOFF-CONTROLS				
Are run-on/runoff controls in place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are run-on/runoff controls functioning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are run-on/runoff controls effective	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are run-on runoff controls being maintained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Signs of seepage or wetness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sediment transport or deposition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

DEFICIENCIES AND MAINTENANCE ITEMS

No deficiencies or disrupting conditions that would require immediate measures to remedy were identified in the inspection. The inspection findings consisted of maintenance items that were not observed to be signs or potential signs of significant structural weakness.

**Professional Engineer Certification [Per 40 CFR §257.84(b)]
D.B. Wilson CCR Landfill
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 257.84(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: January 5, 2023