

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE INC. FOR)	
APPROVAL TO AMEND ITS ENVIRONMENTAL)	CASE NO.
COMPLIANCE PLAN AND RECOVER COSTS)	2023-00177
PURSUANT TO ITS ENVIRONMENTAL)	
SURCHARGE, AND FOR ISSUANCE OF)	
CERTIFICATES OF PUBLIC CONVENIENCE)	
AND NECESSITY AND OTHER RELIEF)	

RESPONSES TO STAFF’S SECOND INFORMATION REQUEST
TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED SEPTEMBER 11, 2023

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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CASE NO.
2023-00177

CERTIFICATE

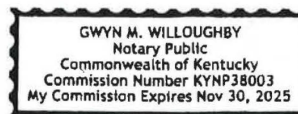
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Laura Lemaster, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated September 11, 2023, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Laura Lemaster

Subscribed and sworn before me on this 21st day of September, 2023.

Gwyn M. Willoughby
Notary Public



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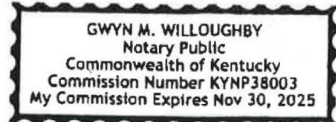
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Jerry Puvis, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated September 11, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Jerry Puvis

Subscribed and sworn before me on this 26th day of September, 2023.

Gwyn M. Willoughby
Notary Public



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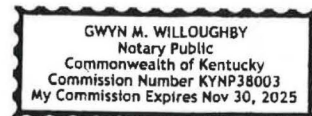
Joseph VonDerHaar, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated September 11, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Joseph VonDerhaar

Subscribed and sworn before me on this 20th day of September, 2023.

Gwyn M. Willoughby

 Notary Public



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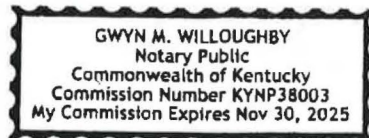
STATE OF KENTUCKY)
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COUNTY OF CLARK)

Brad Young, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated September 11, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Brad Young

Subscribed and sworn before me on this 26th day of September, 2023.

Gwyn M. Willoughby
Notary Public



EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 1

RESPONSIBLE PARTY: Joe VonDerHaar

Request 1. For the past five years, provide a summary of any major forced outages at each of EKPC's Spurlock Station and Cooper Station generating facilities and provide the associated root cause analysis for each outage.

Response 1. Please refer to the file titled PSC DR1 Response 32, subject to a pending motion for confidential treatment filed in response for the first data request, for the summary of forced outages from January 2017 through July 2023.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 2

RESPONSIBLE PARTY: Joe VonDerHaar

Request 2. Confirm if EKPC considered the beneficial reuse of fly ash, bottom ash and/or gypsum by products of coal combustion residual. If yes, provide the analysis, including cost comparisons, conclusions, and any supporting documentation for the conclusions. If not, explain why not.

Response 2. EKPC does consider the beneficial reuse of coal combustion residuals. Cooper Station does not make a saleable fly ash due to the comingling of the gypsum produced in the dry scrubbing process that is required to reduce sulfur emissions. Spurlock Station fly ash from Units 1 and 2 is not a saleable product because wastewater from the ELG system is used to wet the fly ash and then transport it to a landfill. Spurlock fly ash from Units 3 and 4 is a comingled product of fly ash and gypsum that is produced in the dry scrubbing process that is required to reduce sulfur emissions. The Spurlock 3 and 4 bed ash is not suitable for sale due to the high lime content in the product. The bottom ash from Cooper Units 1 and 2 and Spurlock 1 and 2 would be useable in a beneficial reuse market such as for making CMU blocks or for use as anti-skid material for roadways. Bottom ash from each station only makes up approximately 40,000 tons per year.

There has been market interest in this product but nothing on a consistent long-term basis. EKPC uses bottom ash, which has a granular consistency for building roadways internal to our landfills, replacing the purchase of aggregates.

The wet flue gas desulfurization system on Spurlock 1 and 2 produces about 300,000 to 400,000 tons of gypsum annually. This is not wallboard quality gypsum. To make existing gypsum into wallboard grade quality and to install the material handling system is very expensive. A study performed in 2017 shows that the system required to make the wallboard quality gypsum with a material handling system would cost approximately \$75 million. The limestone used in the scrubbing process is only 88% calcium oxide. Wallboard quality gypsum requires a 95% limestone product. The cost differential between the lower quality limestone and the higher quality limestone would be \$15 to \$ 20 per ton. The sale of wallboard quality gypsum does not support the investment cost and the increased operating cost.

EKPC has recently seen increased interest in the purchase of non-wallboard quality gypsum. We are currently negotiating with a company on the purchase on an as-is, where-is basis. EKPC will perform a market assessment for the non-quality gypsum product by issuing a request for proposal for this product if the potential buyer decides not to purchase the product.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 3

RESPONSIBLE PARTY: Jerry Purvis

Request 3. Refer to the Cooper Station landfill-capping project as described in the EKPC application, page 16, and paragraph 32(d). Confirm that the storm water drainage ditch leachate be monitored and treated. If it is, provide the associated costs to monitor and treat the leachate as well as any supporting documentation or estimates. If it will not be monitored, explain how EKPC reached that decision and include any supporting documentation.

Response 3. EKPC submitted a timely renewal application to the Kentucky Division of Water (KDOW) under the Kentucky Pollutant Discharge Elimination System (KPDES) in December of 2022. In the application, EKPC described and requested two additional permit outfalls for the Cooper Former Impoundment (CFI) project. EKPC outlined in the permit application and the Commission application that EKPC will engineer, develop, and construct storm water controls to prevent run-on of waters to the CFI site from precipitation, which will be diverted and controlled under Best Management Practices (BMP) during and after completion of the project and will provide

engineered sedimentation basins to collect and treat any wastewater from the CFI site, which will discharge through outfalls 9 and 10. Post-construction, such discharges will consist solely of surface water runoff from the site that flows off the engineered cap and is captured by the perimeter ditch system. KDOW approved the application and issued a final renewal KPDES permit in July 2023 that established effluent limitations for flow, total suspended solids, oil and grease, and pH. EKPC will comply with the renewed KPDES permit to control and monitor all discharges from the Cooper facility, including the CFI site. When and if the proposed legacy CCR rule is finalized, we will work with the EPA, Energy and Environment Cabinet, Department for Environmental Protection, KDOW and Kentucky Division of Waste Management to assess and comply with any new requirements applicable to EKPC facilities. The project costs in the Commission application address complying with the current EPA rules and existing permits.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 4

RESPONSIBLE PARTY: Joe VonDerHaar

Request 4. Refer to EKPC's response to Commission Staff's First Request for Information, Item 1 and Item 2. Provide variable production cost data in \$/MWH for the past five years for the Cooper Station facility as provided in the chart provided in the actual response file for Item 1.

Response 4.

Variable Production Cost (Mills/Net kWh)										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cooper Station	\$56.30	\$ 54.03	\$ 56.87	\$ 64.60	\$ 78.18	\$ 71.22	\$156.88	\$133.20	\$ 85.58	\$110.09

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 5

RESPONSIBLE PARTY: Laura LeMaster

Request 5. Refer to the Application, page 16, “[t]he anticipated cost for the CFI Closure in Place project is \$47.2 million”. Provide a breakdown of the cost estimate and any supporting documentation.

Response 5. A Cost breakdown for the project is included in the Application, Exhibit LL-1, Appendix E, Attached is a more refined cost estimate build-up, which is being filed under seal pursuant to a Motion for Confidential Treatment.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 6

RESPONSIBLE PARTY: Brad Young

Request 6. Provide a chart with a breakdown of cost comparison for each proposed project as well as each alternative considered.

Response 6. See *PSC Request 6 Response.xlsx* containing a breakdown of cost comparison for each proposed project with applicable alternatives.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2023-00177
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED SEPTEMBER 11, 2023

REQUEST 7

RESPONSIBLE PARTY: Laura LeMaster and Jerry Purvis

Request 7. Provide the environmental protection measure(s) that will be taken in the closure of the Cooper Station ash pond, including whether or not the area will be lined prior to final cap. Explain whether EKPC considered future environmental regulations related to legacy ponds in its evaluation of the closure plan.

Response 7. EKPC will deploy numerous environmental protection measures throughout the closure in place project. (BMPs) will be utilized throughout the duration of the construction activities onsite in accordance with Cooper Station's (KPDES) permit, which was recently renewed by KDOW and specifically accounts for the CFI project, both during and after construction.

Stormwater management will be critical in the project to ensure environmental protection. The stormwater management designed for this project is discussed in the Application, Exhibit LL-1, Section 8.1.1. The stormwater management will begin with the construction of two stormwater basins. Both basins will be lined with 12 inches of clay liner.

Once the stormwater basins are complete, a temporary perimeter stormwater collection system will be installed to minimize the amount of run-on to the CFI during closure activities. All of this non-contact water will be directed to the north stormwater basin which will discharge through a newly permitted KPDES outfall.

The south stormwater basin will have a temporary 40 mil LLPDE liner and a riser pipe to function as a sedimentation pond during construction activities to allow for settling of total suspended solids. Both the temporary riser pipe and liner will be removed once construction activities are completed. All precipitation that falls within the temporary perimeter stormwater collection system during construction will be pumped to the south stormwater basin, which will allow for settlement prior to discharge through the newly permitted KPDES outfall. Porewater removed during dewatering will be treated as necessary to meet the KPDES outfall requirements. Coal combustion byproduct (CCB) material will be consolidated from approximately 65 acres to 40 acres prior to capping with a final cap system including a 40-mil geomembrane liner, a geotextile cushion overlain by two feet of soil protective cover. Within the 40 acres of consolidated material, there will not be construction activities for installation of additional clay liner or the installation of a geomembrane liner at the base of the CCB.

Additional environmental protection measures utilized during construction will be dust suppression measures and the minimization as much as feasible of the open working face.

EPA proposed the so-called legacy CCR rule on May 18, 2023.

EKPC understands, based on statements in the proposed rule preamble and in EPA's spring 2023 unified regulatory agenda, that EPA intends to finalize the proposed legacy CCR in spring 2024.

Once the rule is finalized, EKPC will work with the EPA, the Energy and Environment Cabinet, Department for Environmental Protection and Division of Waste Management to identify any new requirements and evaluate their impact on EKPC facilities, including the CFI, if applicable.