

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company)
For Approval of A Certificate of Public Convenience)
And Necessity For Environmental Project)
Construction At The Mitchell Generating Station, An)
Amended Environmental Compliance Plan, And)
Revised Environmental Surcharge Tariff Sheets)

Case No. 2021-00004

DIRECT TESTIMONY OF
GARY O. SPITZNOGLE
ON BEHALF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION AND BACKGROUND

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.**

2 A. My name is Gary O. Spitznogle, and my business address is 1 Riverside Plaza, Columbus,
3 Ohio 43215. I am employed by the American Electric Power Service Corporation
4 (“AEPSC”) as the Vice President – Environmental Services. AEPSC is a wholly-owned
5 subsidiary of American Electric Power Company, Inc. (“AEP”), the parent of Kentucky
6 Power Company (“Kentucky Power” or the “Company”).

7 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL**
8 **BACKGROUND.**

9 A. I earned a bachelor’s degree in chemical engineering from The Ohio State University
10 College of Engineering in 1998. I joined AEPSC in 1997 and worked in various positions,
11 including several related to research and development activities to improve the
12 environmental performance of AEP’s power generation. I served as Vice President of
13 Regulatory and Finance for Ohio Power Company, from 2013 to December 2015. I then
14 served as Managing Director of Coal Combustion Residuals Management for AEPSC until
15 March 2019. I assumed my current position as Vice President - Environmental Services in
16 July 2019.

1 **Q. WHAT ARE YOUR PRINCIPAL AREAS OF RESPONSIBILITY?**

2 A. I am responsible for oversight of the Environmental Services organization, which provides
3 environmental support for all generation and energy delivery facilities owned by AEP
4 operating companies. Specifically, the Environmental Services organization provides
5 permitting and compliance support, guidance, procedures, recommendations, and training
6 to AEP's operating companies to maintain and improve their environmental programs and
7 enhance compliance with environmental laws, regulations, and policies. As part of this
8 effort, Environmental Services is also involved in developing environmental regulations
9 and coordinating with operating company staffs to support AEP's corporate strategies and
10 values concerning the environment.

11 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN ANY REGULATORY**
12 **PROCEEDINGS?**

13 A. Yes. I sponsored responses to data requests and testified before this Commission in Case
14 No. 2019-00443, Kentucky Power's most recent Integrated Resource Plan. I have also
15 testified several times before the Public Utilities Commission of Ohio and presented written
16 and oral testimony before the United States House of Representatives Select Committee on
17 Energy Independence and Global Warming, which was established to investigate new energy
18 technologies with the goal of achieving energy independence while reducing or eliminating
19 the emission of greenhouse gases.

20 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

21 A. The purpose of my testimony is to describe the environmental regulations that drive the
22 need and timing for the environmental improvement projects (the "Projects") at the
23 Mitchell Plant ("Mitchell" or "the Plant"). The Projects are described in general in

1 Kentucky Power's application and in greater detail in the testimony of Company Witnesses
2 Brett Mattison, Brian D. Sherrick, and Mark A. Becker. I will also outline the permitting
3 required to install the environmental controls that are the subject of this application.

II. ENVIRONMENTAL REGULATIONS

4 **Q. PLEASE DESCRIBE THE REGULATORY REQUIREMENTS THAT DRIVE THE**
5 **NEED FOR THE PROJECTS AT MITCHELL.**

6 A. The federal regulations that drive the need for the Projects are the Coal Combustion
7 Residuals ("CCR") Rule and the Steam Electric Effluent Limitation Guidelines ("ELG")
8 Rule. The CCR Rule regulates the handling and storage of CCR material in an
9 environmentally responsible manner. The ELG Rule regulates wastewater discharges for
10 the protection of surface water.

11 **Q. PLEASE DESCRIBE THE CCR RULE IN GREATER DETAIL.**

12 A. On April 17, 2015, the United States Environmental Protection Agency ("EPA") published
13 the CCR Rule to regulate the disposal and beneficial use of CCR, which includes fly ash
14 (ash that is collected in electrostatic precipitators), bottom ash (ash that is collected from
15 the bottom of a coal-fired boiler), and gypsum (a by-product of the flue gas desulfurization,
16 or ("FGD"), process) that are generated at coal-fired electric generating units through
17 normal unit operation. The rule applies to new and existing CCR landfills and CCR surface
18 impoundments (ponds) at operating coal-fired electric generating facilities. The rule
19 defines construction and operation obligations for CCR handling and storage, including
20 location restrictions (such as seismic stability requirements and a 5-foot minimum
21 separation between the bottom of the pond and the uppermost aquifer); design criteria for
22 storage areas (such as specifications for liners and caps to isolate stored CCR from the
23 environment); structural integrity requirements for impoundments; and groundwater

1 monitoring and protection requirements that include frequent sampling and analysis of
2 groundwater to determine if it is impacted by the CCR storage site. If any of the above
3 criteria are unmet or are outside of EPA-established acceptable ranges, remediation steps
4 must be undertaken that could include any or all of the following: closure of the site,
5 removal of the CCR material from the site, and/or groundwater treatment sufficient to
6 attain applicable standards.

7 EPA has revised some requirements of the CCR Rule, including applicable
8 compliance dates, since the initial 2015 regulation. The most recent compliance date
9 revisions were finalized in August 2020. The compliance timelines and options in this
10 latest version of the CCR Rule are addressed in the remainder of my testimony.

11 **Q. PLEASE DESCRIBE THE ELG RULE IN GREATER DETAIL.**

12 A. On November 3, 2015, EPA published a final rule revising effluent limitation guidelines
13 for steam-electric generating facilities. The rule established discharge limits on FGD
14 wastewater, transport water used for fly ash and bottom ash handling, and other
15 wastewaters. EPA has revised the requirements of the ELG Rule, including applicable
16 compliance dates, since the initial 2015 regulation. The most recent revisions were
17 finalized in October 2020. The revised rule eliminates the discharge of most ash transport
18 waters and requires enhanced treatment of FGD wastewaters. These requirements are
19 implemented through modifications to the existing state wastewater discharge (“NPDES”)
20 permit at Mitchell. The compliance timelines and options in the latest version of the ELG
21 Rule are addressed in the remainder of my testimony.

1 **Q. IS THERE MORE THAN ONE ALTERNATIVE TO ENABLE MITCHELL TO**
2 **MEET WITH THE CCR AND ELG RULES' REQUIREMENTS?**

3 A. Yes. Two potential compliance cases are detailed by Company Witnesses Mattison,
4 Becker, and Sherrick: Case 1 enables ongoing operation under the requirements of both
5 CCR and ELG rules; and Case 2 meets the ongoing operational requirements under the
6 CCR rule but requires retirement by the end of 2028 under the ELG rule. There are various
7 engineering solutions to accomplish the first and second compliance cases, which
8 Company Witness Sherrick details. A third compliance option would be to retire Mitchell
9 by April 11, 2021 absent an extension from the EPA to retire at a later date. Company
10 Witness Mattison explains why this third option is not viable for Mitchell.

11 **Q. IS THERE ANY WORK KENTUCKY POWER MUST PERFORM UNDER ALL**
12 **COMPLIANCE SCENARIOS?**

13 A. Yes. Because the bottom ash pond at Mitchell is unlined its closure must be initiated by
14 April 11, 2021. That closure date may be extended if EPA grants an extension of that
15 deadline.

16 **Q. PLEASE DESCRIBE THE TIMELINES AND PROJECTS THAT WOULD**
17 **ALLOW MITCHELL TO MEET THE REQUIREMENTS OF THE CCR AND ELG**
18 **RULES AND CONTINUE OPERATING PAST 2028.**

19 A. Consistent with the Company's CCR extension request filed with EPA on November 30,
20 2020,¹ to continue operating Mitchell beyond 2028, Kentucky Power is required to close
21 the bottom ash pond at the Plant, which is unlined, to achieve compliance with the CCR

¹<https://www.aep.com/Assets/docs/requiredpostings/ccr/2020/12-2-2020/ML-BAP-SIAlternateCapacityInfeasibleNotice-11302020.pdf>

1 Rule. The schedules for pond closure and developing alternative management options for
2 bottom ash and other wastewaters are site-specific and are subject to approval by EPA.

3 To operate post-2028, Kentucky Power is required to convert the bottom ash
4 handling equipment on the steam generating units at Mitchell to dry bottom ash handling
5 systems and install bioreactors for treatment of FGD wastewater streams at the Plant to
6 comply with the ELG Rule. The ELG Rule requires that discharge limits must be achieved
7 as soon as possible before December 31, 2025, pursuant to approval of a schedule that will
8 be included in the NPDES permit for the Plant. To expedite compliance, Kentucky Power
9 has developed coordinated compliance activities that would be necessary to address the
10 bottom ash transport water requirements of the ELG Rule and the CCR Rule. The new
11 bioreactors would achieve full ELG compliance by April 2025.

12 **Q. IS EPA'S APPROVAL OF THE DATES KENTUCKY POWER REQUESTED IN**
13 **ITS CCR EXTENSION REQUEST FILING GUARANTEED?**

14 A. No. The compliance dates the Company has requested are based on the Company's best
15 estimate for compliance and the time required to perform those projects. It is possible that
16 EPA could require changes to the CCR project schedules and compliance dates as part of
17 its approval of Kentucky Power's extension request.

18 **Q. WHEN WILL EPA ACT ON KENTUCKY POWER'S REQUEST FOR AN**
19 **EXTENSION?**

20 A. EPA is required to act on extension requests within four months from their filing date.
21 Based on the filing date of November 30, 2020, EPA's response is due no later than March
22 30, 2021.

1 **Q. IF KENTUCKY POWER MOVES FORWARD WITH THE AFOREMENTIONED**
2 **CCR AND ELG COMPLIANCE PROJECTS AT THE PLANT, WHAT IMPACT**
3 **DOES THAT HAVE ON ITS EXPECTED LIFE?**

4 A. By executing the CCR and ELG compliance projects that I have previously described, the
5 Plant would be able to continue to operate beyond 2028. Company Witnesses Mattison
6 and Becker discuss further details regarding the continued operation of Mitchell beyond
7 2028.

III. ALTERNATIVES TO KENTUCKY POWER'S
PROPOSED COMPLIANCE PROJECTS

8 **Q. DO THE CCR AND ELG RULES CONTAIN PROVISIONS FOR ALTERNATIVE**
9 **ACTIONS A UTILITY CAN TAKE OTHER THAN PERFORM THE PROPOSED**
10 **CCR AND ELG COMPLIANCE PROJECTS?**

11 A. Yes. There are multiple options for compliance with the CCR and ELG Rules, each of
12 which results in different requirements for plant operations, and potentially plant
13 retirement. In my role in Environmental Services, I analyzed the rules and discussed all of
14 the potential compliance options with experts at Kentucky Power and AEPSC. While some
15 options under the CCR and ELG Rules were deemed to be impracticable, others were
16 further analyzed by Company Witness Becker and are further described in his testimony.
17 Those options that were determined to be impracticable are discussed in more detail in the
18 testimony of Company Witness Mattison.

1 **Q. IF KENTUCKY POWER WERE TO MAKE NO ADDITIONAL**
2 **MODIFICATIONS TO COMPLY WITH THE CCR AND ELG RULES, WHAT**
3 **IMPACT WOULD THAT HAVE ON THE PLANT?**

4 A. The CCR Rule requires that, absent an extension, unlined CCR storage ponds (such as the
5 bottom ash pond at the Plant) must cease operations and initiate closure by April 11, 2021.
6 This would require the Plant to cease operations by that date.

7 **Q. DOES EPA ALLOW FOR ANY OTHER TYPES OF EXTENSIONS WITHIN**
8 **EITHER THE CCR OR ELG RULES?**

9 A. The CCR Rule has a retirement provision that allows time to complete the closure of
10 existing ash ponds for facilities that plan to cease combusting coal or retire. In the case of
11 the Plant, the bottom ash pond would be required to complete closure by October 17, 2023,
12 which means the Plant would be required to cease operation even earlier that year.

13 The ELG Rule also has a retirement option that would allow the Plant to continue
14 discharging bottom ash transport water and FGD wastewater subject to specific limitations
15 in exchange for a commitment to cease combusting coal or retire the plants by December
16 31, 2028. In this case, the Plant would not be required to make additional capital
17 investments in dry ash handling or wastewater treatment equipment, which can generally
18 be referred to as a “CCR Only” option. To take advantage of the ELG retirement option,
19 facilities must notify the state permitting agency by October 13, 2021, that the ELG
20 compliance strategy is to cease combusting coal or retire the generating unit. The Company

1 would then have 5 years to close, by removal, the new pond systems that were installed for
2 CCR compliance.

3 **Q. WOULD IT BE POSSIBLE TO COMPLY WITH ELG, BUT NOT CCR?**

4 A. No. The Plant must cease using the existing bottom ash ponds by April 11, 2021, or obtain
5 an extension of time from EPA to complete the projects necessary to comply with the CCR
6 Rule.

7 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

8 A. Yes, it does.



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E-Signature Summary

E-Signature 1: Gary O. Spitznogle (GOS)

February 08, 2021 06:08:27 -8:00 [412B7C8128AE] [74.133.52.229]
gospitznogle@aep.com (Principal) (Personally Known)

E-Signature Notary: S. Smithhisler (SRS)

February 08, 2021 06:08:27 -8:00 [9F13A9975F6D] [167.239.221.82]
srsmithhisler@aep.com

I, S. Smithhisler, did witness the participants named above electronically sign this document.



VERIFICATION

The undersigned, Gary O. Spitznogle, being duly sworn, deposes and says he is the Vice President – Environmental Services for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the forgoing testimony, and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.


Signed on 2021/02/08 06:08:27 -8:00

Gary O. Spitznogle

STATE OF OHIO

)


) Case No. 2021-00004

COUNTY OF FRANKLIN

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Subscribed and sworn to before me, a Notary Public in and before said County and State, by Gary O. Spitznogle, this 8th day of February, 2021.




Signed on 2021/02/08 06:08:27 -8:00

Notary Public

Notary ID Number: 2019-RE-775042

