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May 21, 2021

Mr. Vojin Janjić (Water.Permits@tn.gov)
Manager, Water-Based Systems
Tennessee Department of Environment
and Conservation (TDEC)
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
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Dear Mr. Janjić:

TENNESSEE VALLEY AUTHORITY (TVA) – CUMBERLAND FOSSIL PLANT (CUF) – NPDES PERMIT NO. TN0005789 – MODIFICATION REQUEST SUPPLEMENTAL INFORMATION

On October 13, 2020, the United States Environmental Protection Agency (EPA) published revisions to the Steam Electric Effluent Limitation Guidelines (ELGs) in 40 CFR Part 423. The revised rule modifies technology-based effluent limitations for Flue Gas Desulfurization (FGD) wastewater and Bottom Ash Transport Water (BATW). In setting stringent new effluent limitations, EPA recognized the need to provide compliance flexibility by establishing new subcategories that provide different compliance pathways based on unit operation and asset operating plans and by allowing transfers between subcategories.

In 40 CFR 122.62(a)(3), EPA's regulations implementing the Clean Water Act require permit modification requests that are based on changes in regulations to be filed within 90 days of the publication of the change in the Federal Register. To meet this requirement, TVA submitted an NPDES permit modification request for CUF on January 8, 2021, to incorporate revisions to the ELGs. Enclosed with that submission was TVA's justification to modify the permit, including interim milestones dates and applicability date proposals with justifications for coming into compliance with the revised technology-based effluent limitations for the Generally Applicable category for bottom ash transport water (BATW).

Since January; however, there have been new developments and new information has become available that make it necessary for TVA to revise its proposed interim milestone for BATW recirculation system commissioning. On May 6, 2021, the TVA Board of Directors held its quarterly meeting during which TVA's CEO discussed planning assumptions for the retirement of TVA's coal fleet by 2035 and announced a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) to assess the impacts associated with the proposed retirement of CUF and the replacement generation alternatives. On May 11, 2021, TVA published the NOI for the EIS in the Federal Register. Regulations promulgated by the Council on Environmental Quality at 40 CFR parts 1500 to 1508 (84 FR 43304, July 16, 2020) and TVA's procedures implementing the National Environmental Policy Act (NEPA) at 18 CFR part

1318 require TVA to provide a detailed statement on proposals for major federal actions significantly affecting the quality of the human environment. Preparing an EIS ensures that TVA is considering relevant environmental information, and that the public has been informed about and has an opportunity to comment on TVA's proposed decision. The EIS process is crucial for TVA to appropriately evaluate and prioritize the values and concerns of stakeholders and to formulate, evaluate, and compare alternatives.

The CUF planning assumptions in the NOI calls for the retirement of one CUF unit as early as 2026 and the second unit as early as 2028. The range of alternatives TVA is considering for replacement generation includes continued operation of the coal plant (requiring additional plant modifications to meet ELG requirements) if replacement generation is not available and retirement of the coal plant with replacement generation provided by a new combined cycle (CC) gas plant, new simple cycle gas plants, and/or new solar and storage facilities. TVA expects to release the draft EIS in spring of 2022 and anticipates issuing the final EIS in fall of 2022. Following evaluation of the effects of the proposed retirement of CUF and the potential replacement generation, as well as consideration of the comments received during the EIS process, TVA will then be able to make a decision on either the continued operation of CUF, or its retirement with replacement generation.

Two recent developments emphasize the need for a robust and informed decision making process on the timing of coal plant retirements. The first is Executive Order No. 14008 on "Tackling the Climate Crisis at Home and Abroad" which President Biden issued on January 27, 2021. This Executive Order directs a "whole of government" approach, which includes TVA, to tackling the climate crisis and announced an Administration policy goal of achieving a "carbon pollution-free electricity sector no later than 2035." The Executive Order raises significant new questions for TVA about the availability of natural gas as a potential replacement for coal power generation at CUF and, therefore, whether TVA will be able to participate in the permanent cessation of coal combustion subcategory in the ELG Rule which requires retirement by December 31, 2028. A second development that has raised the stakes regarding retirement decisions was the recent major power outage crisis that Texas suffered in February 2021 as a result of severe winter storms that swept across the United States. The TVA system performed well during these winter storms, but that crisis highlights the challenges that electric utilities face during extreme weather and the fundamental importance of reliable power generation.

Both the recent Executive Order and power crisis raise new uncertainties regarding the retirement of CUF and the replacement generation and infrastructure necessary for reliability that make a robust evaluation of alternatives by TVA and the public even more critical. The planning assumptions detailed in the May 11, 2021, NOI for the EIS impact the timing of TVA's decision making with respect to ELG Rule compliance. TVA would have to begin expending resources in the summer of 2021 to meet the initially proposed interim milestone commissioning date of July 1, 2023, for the BATW recirculation infrastructure. With the TVA decision on potential retirement and replacement generation for CUF not occurring until after the NEPA review is complete in fall 2022, TVA would be at significant risk of designing and constructing multi-million dollar assets that may ultimately not be needed to comply with the ELG Rule if TVA

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determines that reliable replacement generation is likely to be available and it is feasible to retire the CUF units by the end of 2028. Wasting these assets would not appreciably advance any environmental interests or be in the best interests of TVA's ratepayers, a significant number of which are Tennessee residents.

To avoid the construction followed by the impending retirement of BATW recirculation infrastructure and controls based on the conclusion of the NEPA process, TVA requests an additional 16 months to commission a high recycle BATW system to comply with the Generally Applicable ELG category. This revises TVA's proposed interim milestone commissioning date from July 1, 2023 to December 31, 2024. This will leave 12 months to establish Best Professional Judgment (BPJ) limits prior to TVA's previously-requested applicability date of December 31, 2025. The cost and schedule information for projects to design and install a high recycle BATW system included in the January 8, 2021, permit modification submittal remain the same.

This request to change TVA's previously requested interim milestone date is consistent with the compliance flexibility that EPA incorporated into the Rule. By permitting transfers between categories up until December 31, 2025, EPA clearly recognized that compliance decisions could take years. In the absence of additional time, TVA would be forced to make significant capital investments in wastewater treatment equipment in order to preserve the option of continuing to operate the coal plants after December 31, 2028, but those investments would be wasted if TVA ultimately makes a decision to retire the plants. Avoiding the construction of costly and unnecessary infrastructure is certainly among the appropriate factors which TDEC is authorized to consider.

If you have questions or need additional information, please contact Brad Love at (423) 751-8518 or by email at bmlove@tva.gov.

Sincerely,



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Senior Manager
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