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Submitted electronically at www.regulations.gov

Attention Docket ID No. EPA-HQ-OW-2009-0819

RE: Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category

Dear Administrator Pruitt:

The Southern Environmental Law Center ("SELC") submits the following comments on the above-referenced rulemaking on behalf of itself and the following twenty-eight organizations: Alabama Rivers Alliance, Appalachian Voices, Black Warrior Riverkeeper, Cahaba Riverkeeper, Cahaba River Society, Cape Fear River Watch, Catawba Riverkeeper Foundation, Inc., Chattahoochee Riverkeeper, Inc., Coastal Conservation League, Congaree Riverkeeper, Coosa River Basin Initiative, Coosa Riverkeeper, Environment Georgia, James River Association, Mobile Baykeeper, MountainTrue, One Hundred Miles, Potomac Riverkeeper Network, Roanoke River Basin Association, Save Our Saluda, Sierra Club, Sound Rivers, Inc., Southern Alliance for Clean Energy, Statewide Organizing for Community eMpowerment, Tennessee Riverkeeper, Watauga Watershed Alliance, Waterkeeper Alliance, and Winyah Rivers Foundation, Inc.

We write to express our strong opposition to EPA's proposal to postpone certain compliance dates in the effluent limitations guidelines and standards for the steam electric point source category under the Clean Water Act ("ELG Rule"). We agree with and have joined in separate comments by Clean Water Action, Sierra Club and others explaining that EPA lacks authority to delay the compliance deadlines. Our purpose here is not to reiterate those comments, which we adopt and incorporate by reference, but instead to highlight the real-world consequences of delaying the Rule's protections. Our focus is on the Southeast, a region that continues to shoulder a disproportionate pollution burden from coal-based electricity generation. The ELG Rule appropriately forces coal-burning utilities to lessen that burden. Accordingly, we join in urging EPA to immediately reinstate all compliance deadlines under the 2015 ELG Rule, and to notify state permitting authorities and power plant utilities that the Rule remains in effect and must be implemented according to the compliance deadlines contained in the final rule.

I. Introduction

It has been over thirty years since the effluent limitations guidelines and standards have been updated for this source category, which includes many aging, highly polluting coal-fired power plants. The 1982 guidelines did not set any limits on the discharge of toxic metals in power plant wastewater, leaving it to state permitting agencies to set limits on a case-by-case

basis. In the Southeast and elsewhere, however, state permitting agencies have largely failed to fulfill that responsibility.

In short, the ELG Rule's protections are long overdue. Even so, the Rule already includes built-in delays, allowing compliance to be achieved as late as December 31, 2023. EPA's proposal would aggravate this already problematic aspect of the Rule by delaying compliance indefinitely. Further delay is unacceptable for a problem that is, as EPA has noted, both "a serious public health concern and [a] cause [of] severe ecological damage." 80 Fed. Reg. 67838, 67840 (Nov. 3, 2015). EPA's proposal would also give rise to considerable regulatory uncertainty and place undue strain on limited state agency budgets.

These effects would be particularly felt in the southeastern U.S., which contains a high proportion of aging coal-fired power plants. The Southeast has several vivid examples of the problem EPA set out to address when it published the final ELG Rule in 2015: the continued reliance on surface impoundments to "treat" wastewater despite process changes and technological advances that have substantially altered and augmented those wastestreams, rendering surface impoundments "largely ineffective at controlling discharges of toxic pollutants and nutrients." *Id.* EPA itself cited in the final rule a particularly notorious example from North Carolina: "the near eradication of an entire fish population in the late 1970s in Belews Lake … due to selenium discharges from a steam electric power plant." *Id.* Belews Creek Station is now one of several facilities treating this wastestream in the manner required by the 2015 ELG Rule.

Around the Southeast similar examples of public health risks and ecological damage abound. According to a 2016 report, the Southeast is home to four of the top ten mercury dischargers, including the number one mercury polluter, and several of the top ten arsenic dischargers among coal-fired power plants in the U.S.[1] Many coal plants in the region sit upstream from public drinking water intakes, further exacerbating concerns about toxic metal discharges. But the picture is not all bleak. In several instances, such as at Belews Creek, utilities are moving toward or have already implemented the compliance mechanisms that EPA now proposes to suspend indefinitely. EPA's proposal is tone deaf to these developments and sends precisely the wrong signal to an industry that is at long last taking steps to address a significant ongoing environmental and public health concern.

Consideration of these examples is particularly appropriate given EPA's purported justification for suspending the compliance deadlines. EPA's proposal is devoid of any discussion or even mention of impacts on public health and the environment. EPA's proposal instead rests on arguments about the alleged costs of the rule and alleged burdens on industry. Yet even there EPA neglects to highlight examples of industry compliance ahead of the ELG Rule's already too-generous compliance deadlines.

[1] Environmental Integrity Project, Toxic Wastewater from Coal Plants, 16 (Aug. 2, 2016) (Attachment 1, hereinafter, EIP Report), *available at* http://environmentalintegrity.org/wp-content/uploads/Toxic-Wastewater-from-Coal-Plants-2016.08.11-1.pdf.

The following specific examples are taken from several states around the Southeast. They illustrate both the scope of the problem and the progress being made. These examples are intended to be illustrative and not exhaustive. We hope they prompt EPA to reconsider and revoke its ill-conceived proposal.

II. State-Specific Examples

Tennessee

The Tennessee Valley Authority ("TVA") owns and operates several coal-fired plants in Tennessee, as well as two now-retired facilities in northern Alabama. The active plants and the status of their respective wastewater discharge ("NPDES") permits are listed in the table that follows. As the table reflects, most of the permits have lapsed, some by several years.

Facility	**NPDES Permit No.**	**Permit Expiration Date**
Allen Fossil Plant	TN0005355	08/03/2010
Bull Run Steam Plant	TN0005410	11/01/2013
Cumberland Steam Plant	TN0005789	05/31/2010
Gallatin Steam Plant	TN0005428	05/31/2017
Johnsonville Steam Plant	TN0005444	11/29/2013
Kingston Fossil Plant	TN0005452	08/31/2008

These plants harbor numerous on-site pollutants related to the storage and disposal of coal ash and scrubber ("FGD") waste. However, none of the administratively continued permits have numeric effluent limitations for coal ash or scrubber waste indicator pollutants for outfalls that discharge this waste. The only relevant limit is Total Suspended Solids ("TSS") as per the 1982 ELGs. Some of these continued permits require monitoring and reporting of coal ash indicators (e.g. Bull Run), but have no limits.

These dated permits have real-world ramifications for water quality. Most of the ash and scrubber waste ponds at TVA's coal plants are located directly adjacent to or literally within rivers and streams. Although TVA committed to transition to dry handling of coal ash nearly a decade ago, it has dragged its feet and continued to pollute the rivers of Tennessee. A 2016 report (hereinafter, "EIP Report") identifies the Cumberland Fossil Plant as the worst mercury polluter and second-largest selenium polluter among coal plants nationwide.[2] Mercury is a potent neurotoxin that accumulates in fish and can cause damage to a person's nervous, digestive, and

[2] EIP Report, *supra* note 1, at 16; *see also* Mark Hicks, *Cumberland City Plant Rated Worst Mercury Polluter*, Clarksville Leaf-Chronicle, August 11, 2016, *available at* http://www.theleafchronicle.com/story/news/2016/08/11/cumberland-fossil-plant-rated-worst-mercury-polluter-us/88559336/.

immune systems.[3] Selenium also accumulates in fish and can cause damage to a person's circulatory system.[4] The report, based on information provided by TVA to the EPA and publicly available in the Toxics Release Inventory, found that in 2015 TVA dumped 120 pounds of mercury and 6,000 pounds of selenium generated at the Cumberland Plant into the Cumberland River.[5] Cumberland is one of three active coal plants in Tennessee (Kingston and Bull Run are the other two) that have high-flow, once-through wet scrubbers that act, essentially, to transfer toxic pollutants from the air to the water with great efficiency. In April 2016 TVA applied for a variance from the ELG Rule's standards for selenium and nitrate/nitrite associated with FGD wastewater at Cumberland.[6] In its application and other public comments, TVA admitted that it selected a high-flow, once-through wet scrubber at Cumberland because, in the absence of limits on the amount of toxic pollution it could discharge to the Cumberland River, it was cheaper to do so.[7] TVA never demonstrated that its variance request was necessary, yet EPA's proposal could nevertheless allow TVA to continue polluting indefinitely.[8]

The other active TVA coal plants in Tennessee report high levels of toxic wastewater discharges as well. The TVA Kingston plant, the site of the infamous coal ash disaster of late 2008, ranks among the top ten among coal plants nationwide in arsenic discharges.[9] Among coal plants with consistent Discharge Monitoring Reports for metals, Bull Run and Gallatin reported among the highest discharges of arsenic, and Bull Run reported among the highest discharges of mercury.[10] At Bull Run, the closest drinking water intake, the West Knox Utility District, is located just a quarter mile downstream of the Fly Ash Pond and Stilling Basin, where the plant's main outfall is located. In addition to the arsenic TVA is *legally* discharging from its outfall, monitoring of the Fly Ash Pond has documented consistent arsenic contamination of groundwater.[11] SELC has published a map of drinking water intakes that are downstream of TVA's coal ash ponds.[12] These intakes serve 3 million people in Tennessee and Alabama.

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[3] EIP Report, *supra* n. 1, at 8.
[4] *Id.*
[5] *Id.* at 16.
[6] TVA, Cumberland Fossil Plant—NPDES Permit No. TN0005789—TVA Request for Alternative Effluent Limitations for Wet Flue Gas Desulfurization System Discharges Based on Fundamentally Different Factors Pursuant to 33 U.S.C. § 1311(n) (April 28, 2016) (Attachment 2).
[7] *Id.* at 5 ("TVA opted for this [once-through] design at that time in part because of … the lack of any wastewater treatment effluent limitations for metals"); *see also* EPA, *Effluent Limitation Guidelines and Standards for the Steam Electric Generating Point Source Category: EPA's Response to Public Comments*, 3-584 ("Because of abundant water resources in the Tennessee Valley and higher material costs for recycle designs, TVA opted for effective, but lower capital cost once-through FGDs") (quoting comment of John W. Meyers on behalf of Tennessee Valley Authority).
[8] *See* Letter to Heather McTeer Toney, U.S. EPA, from Amanda Garcia, Southern Environmental Law Center (Dec. 21, 2016) (Attachment 3).
[9] EIP Report, *supra* note 1, at 16, Table F.
[10] *Id.* at 14, Table E.
[11] *See* Letter to Ashley R. Farless, Tennessee Valley Authority, from SELC (July 8, 2016) (Attachment 4).
[12] *See* New map shows drinking water supplies for 3M in Tennessee and Alabama at risk from TVA coal ash, Southern Environmental Law Center, https://www.southernenvironment.org/news-and-press/news-feed/new-map-shows-drinking-water-supplies-for-2.3m-in-tennessee-at-risk-from-tv (last visited July 6, 2017).

These examples highlight the urgent need for the compliance deadlines under the ELG Rule to remain in effect. Under the terms of a settlement agreement with the Tennessee Department of Environmental and Conservation ("TDEC") and conservation groups, TVA is required to renew three of the above permits (for the Kingston, Gallatin, and Bull Run coal plants) by the end of 2017. In October 2016, TVA submitted to TDEC proposed dates for achieving compliance with the 2015 ELG Rule at those three facilities.[13] Now, however, in response to EPA's proposal, TVA has withdrawn those applicability dates and taken the position that any renewed NPDES permit should include effluent limitations based only on the 1982 ELG Rule.[14] Conservation groups can, and if necessary will, argue for appropriate case-by-case technology-based limits on pollutants such as mercury and selenium. In that instance, however, EPA's unlawful suspension of the ELG Rule places an unnecessary burden on TDEC's limited agency resources. Moreover, TVA is likely to oppose case-by-case limits, citing, as its recent letter does, "substantial uncertainty as to the extent and timing of EPA's reconsideration of the 2015 ELG Rule and any new rulemaking that EPA may undertake."[15] In this way, delay and uncertainty become self-fulfilling justifications for continued inaction. EPA should instead retain the Rule's current deadlines, so that TVA can meet its prior commitments, which demonstrated readiness to comply with the Rule within its already generous timeframe. After decades of unchecked pollution, Tennesseans deserve no less.

Alabama

Alabama has several active coal-burning power plants operated by Alabama Power Company and PowerSouth. The full suite of Alabama's operating coal plants are listed below.

Facility	**NPDES Permit No.**	**Permit Expiration Date**
Alabama Power – Barry	AL0002879	10/31/2013
Alabama Power – Gaston	AL0003140	06/30/2012
Alabama Power – Gorgas	AL0002909	09/05/2012
Alabama Power – Miller	AL0027146	01/31/2012
PowerSouth – Lowman	AL0003671	02/28/2010

[13] For the Kingston plant, see *Tennessee Valley Authority (TVA) Kingston Fossil Plant; Proposed Schedule and Information to Support Development of Applicability Dates under Steam Electric Power Generating Point Source Category Effluent Limitations Guidelines (ELGs).* NPDES Permit Nos. TN0005452 and TN0080870 Updated Permit Renewal Application at 10 (Oct. 18, 2016) and *TVA Kingston ELG Applicability Date Proposal Update* at 14 (April 7, 2017) (Attachment 5). For Gallatin, see *Tennessee Valley Authority (TVA) Gallatin Fossil Plant; Proposed Schedule and Information to Support Development of Applicability Dates under Steam Electric Power Generating Point Source Category Effluent Limitations Guidelines (ELGs)* at 6 (Oct. 17, 2016) (Attachment 6). For Bull Run, see *Tennessee Valley Authority (TVA) Bull Run Fossil Plant; Proposed Schedule and Information to Support Development of Applicability Dates under Steam Electric Power Generating Point Source Category Effluent Limitations Guidelines (ELGs).* TN0005410 NPDES Application Update at 12 (Oct. 21, 2016) (Attachment 7).

[14] *See, e.g,* Letter from Terry E. Cheek, Tennessee Valley Authority, to Vojin Janjic, Tennessee Department of Environment and Conservation, re: Kingston Fossil Plant (June 16, 2017) (Attachment 8).

[15] *Id.*

As the above table illustrates, the NPDES permits for Alabama's operating coal-burning power generation facilities are expired, in some cases by as long as seven years. In communications with conservation groups, the Alabama Department of Environmental Management ("ADEM") has consistently taken the position that it was waiting for EPA to update ELGs for the steam electric generation category before taking action on the expired permits. While Commenters do not agree that ADEM's past inaction was justified, EPA's proposed suspension of the ELG Rule may be interpreted by ADEM as a greenlight for additional delay. Additional delay in renewing and updating Alabama's coal plant wastewater permits will harm Alabamians and their water resources.

Alabama's five active coal plants are each now equipped with flue gas desulfurization technology. Yet despite these and other process changes (some quite recent), their expired NPDES permits do nothing more than implement the 1982 guidelines. For example, in 2016 Alabama Power Company constructed an industrial waste landfill for coal ash waste at Plant Gorgas, a 1000 megawatt coal-fired generating station located on the Black Warrior River near Parrish, Alabama.[16] The new landfill is designed to receive gypsum (i.e. FGD waste) in dry form, and is necessary because the facility's existing gypsum pond is nearing capacity.[17] Although the landfill will receive dry waste, its operation will produce leachate which, according Alabama Power's 2014 NPDES permit application for Plant Gorgas, will be pumped into the site's existing coal ash pond, an unlined surface impoundment originally constructed in 1953 over an existing creek, and from there discharged into the river. The Gorgas facility has two other landfills – one for coal combustion residual ("CCR") waste generally, and the other for bottom ash, as well as the gypsum pond, which contains more than 925,000 cubic yards of wet scrubber waste.[18] These landfills and waste impoundments are located upstream of, and in close proximity to drinking water intakes for several municipalities.[19]

Although Alabama Power has announced plans to close all twelve of its CCR waste ponds (containing a total of 88 million cubic yards of CCR waste), those plans will take several years to execute, with some closures not occurring until after 2030.[20] In the meantime those surface impoundments will continue to discharge unacceptably high levels of toxic pollutants into Alabama's rivers, lakes and streams unless there are enforceable standards limiting such discharges. Given ADEM's poor track record of renewing and updating NPDES permits for these large polluting facilities, the ELG Rule's standards and compliance deadlines are needed to force long-overdue improvements over the status quo.

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[16] Gorgas Steam Plant Landfill, Permit No. 64-10, Permit Modification, ADEM (modified June 24, 2016) (Attachment 9).

[17] Dennis Pillion, Alabama Power plans to cap coal ash ponds in place; environmental groups urge removal, AL.com, Nov. 17, 2016, http://www.al.com/news/birmingham/index.ssf/2016/11/coal_ash_closures_alabama_powe.html.

[18] For more information, see Alabama Power's CCR Rule Compliance Data and Information for Plant Gorgas, *available at* http://www.alabamapower.com/our-company/how-we-operate/ccr-rule-compliance-data-and-information/plant-gorgas.html (last visited July 6, 2017).

[19] *See* Alabama Drinking Water Supplies Downstream from Coal Ash Impoundments, Southern Environmental Law Center (Aug. 2014) (Attachment 10).

[20] *See supra* note 17.

Georgia

As with Tennessee and Alabama, the NPDES permits at Georgia's active coal-fired power plants are expired and have been administratively extended by the Georgia Environmental Protection Division ("EPD"), in some cases by more than two full permit terms. Sites operated by Georgia Power Company include:

Facility	**NPDES Permit No.**	**Permit Expiration Date**
Plant Bowen	GA0001449	06/30/2012
Plant Hammond	GA0001457	06/30/2012
Plant McIntosh	GA0003883	05/31/2004
Plant Scherer	GA0035564	11/30/2006
Plant Wansley	GA0026778	08/31/2011

In addition to these plants, Plant Crisp, owned by the Crisp County Power Commission, has an NPDES permit that expired 8/31/10.

Four of Georgia Power's active coal plants have FGD technology. Yet all four continue to operate under NPDES permits issued before the scrubbers were installed and began generating waste. Thus, the NPDES permits do not address—or even contemplate—the discharge of FGD wastewater and set no limits on such discharges.[21] The permits instead only require compliance with the 1982 ELGs.

Only one of Georgia's active coal plants has a draft renewal permit pending, though several others are reportedly in queue. In February 2017, EPD published notice of an updated draft NPDES permit for Georgia Power's Plant Hammond, a 1950s-era coal plant that sits on the Coosa River several miles upstream of the Georgia-Alabama border. The draft permit would give Georgia Power the maximum time allowable to achieve compliance with the ELG Rule (i.e. until December 31, 2023), even though the utility did not substantiate its need for so much time. Nevertheless, Georgia Power expressed confidence in its ability to meet this distant deadline: "Georgia Power and Plant Hammond have consistently met or exceeded all environmental regulations, and Plant Hammond's compliance with the Effluent Limitation Guidelines is no exception."[22] Georgia Power touted ongoing research by its parent company, Southern Company, on wastewater treatment technologies. Southern Company has constructed a Water Research Center ("WRC") at Georgia Power's Plant Bowen and spent millions developing and evaluating treatment methods, including the biological treatment of FGD wastewater.[23]

[21] *See* Georgia Power 2016 Integrated Resource Plan, Environmental Compliance Strategy, at p. 30, Table 2.10-1 (Jan. 2016) (listing installation dates for FGD technology at Georgia Power's coal-fired power plants) (Attachment 11).
[22] Georgia Power Company's Plant Hammond Effluent Limitation Guidelines Rule Applicability Timing - NPDES Permit Application 2016, at 5 (Attachment 12).
[23] *Id.* at 1, 3.

In addition, across its fleet, Georgia Power is already moving toward dry handling of fly and bottom ash as required by the ELG Rule. The Company has stated that the significant portion of its conversions to dry ash handling would be completed by 2019, well in advance of the ELG Rule's outer compliance deadlines for fly and bottom ash wastewater.[24]

EPA's proposal would thus suspend deadlines that Georgia Power is already planning to meet. It would also force EPD to revisit Plant Hammond's draft permit and to devote scarce agency resources toward developing case-by-case limits in that and other forthcoming permits, a needless burden on an agency already struggling to update multiple expired permits. The ELG Rule's standards and compliance deadlines are needed as a matter of administrative convenience, and to force reductions in harmful and long-ignored coal plant pollution in Georgia.

Virginia

Dominion Energy Virginia's Chesterfield Power Station ("Chesterfield" or "the Chesterfield plant"), VPDES Permit No. VA0004146, is located on the James River near Richmond at Chesterfield, Virginia. The Chesterfield plant adjoins the Dutch Gap Conservation Area, a popular site for fishing, swimming, hiking, and other recreational activities. Wastewater from the coal ash ponds and other wastestreams at Chesterfield discharges into Farrar Gut, part of the conservation area. Implementation of the ELGs, including transition to dry ash handling and treatment of FGD wastewater and ash landfill leachate, will reduce risks to human health and the environment posed by discharges of toxics and metals into this area used heavily by the public.

Chesterfield's VPDES permit was reissued effective October 1, 2016.[25] Despite the fact that Dominion Energy Virginia has already installed advanced wastewater treatment systems at Bremo Power Station and Possum Point Power Stations—which routinely achieve concentrations below the quantification levels for many heavy metals and other pollutants—the Virginia Department of Environmental Quality ("Virginia DEQ") declined to set limits for Chesterfield based on these established and economical systems. In its Response to Comments on the draft permit, the Virginia DEQ explained that, in its opinion, "the 1982 and 2015 [federal effluent guidelines] satisfactorily apply to the wastewater discharges authorized by the proposed permit," and therefore case-by-case technology-based effluent limits were not needed or appropriate.[26] In

[24] Georgia Power's Ash Pond Closure Process webpage, *available at* https://www.georgiapower.com/environment/analytical-data.cshtml (last visited July 3, 2017).

[25] Letter from Michael P. Murphy, Virginia Department of Environmental Quality, to Pamela F. Faggert, Vice President and Chief Environmental Officer, Dominion Electric and Power Company, RE: VPDES Permit No. VA0004146, Dominion Chesterfield Power Station (Sept. 23, 2016) (enclosing VPDES permit) (Attachment 13), *available at* http://www.deq.virginia.gov/Portals/0/DEQ/Water/PollutionDischargeElimination/Coal_Ash/Chesterfield/VA0004146FinalPermit.pdf?ver=2016-10-31-163846-840.

[26] Virginia Department of Environmental Quality, Response to Comments, VPDES Permit No. VA0004146, Dominion Chesterfield Power Station, at 2-3 (Aug. 23, 2016) (Attachment 14, hereinafter Response to Comments), *available at* http://www.deq.virginia.gov/Portals/0/DEQ/Water/PollutionDischargeElimination/Coal_Ash/Chesterfield/ResponsetoPublicComments08.19.16.pdf.

other words, Virginia DEQ's permitting decision rests on the assumption that the ELG Rule will be implemented on schedule.

According to Virginia DEQ, the Chesterfield plant is expected to transition to dry ash handling before November 1, 2018, and therefore the agency set the "as soon as possible" date for compliance at November 1, 2018.[27] Fly and bottom ash transport wastewater generated prior to this date may be discharged after the compliance date subject only to the TSS BAT standard.[28] EPA's proposal runs counter to these expectations. Obviously Virginia DEQ does not envision any obstacle to achieving timely compliance with the dry conversion provisions of the ELG Rule.

The FGD wastewater stream at Chesterfield is currently treated using chemical precipitation.[29] The compliance date for development of a biological treatment component in accordance with the ELG Rule is set for March 29, 2022. Virginia DEQ established that deadline—almost 5 years from today but still more than 20 months ahead of the ELG Rule's outer deadline[30]—based on Dominion's own plans, designs, and schedules. Although commenters argued compliance could be achieved even sooner, even Dominion's schedule establishes the plain fact that compliance will be readily achieved well in advance of the outer deadline. FGD wastewaters generated before March 29, 2022 are treated as legacy wastewaters, to be subject only to BPT-based limits.[31]

Virginia DEQ relied on the ELG Rule in its decision to reissue the Chesterfield VPDES permit, and significant resources have already been expended at Chesterfield to ensure compliance with the ELG Rule within the prescribed deadline. The feasibility of compliance is already well established at Chesterfield and any further delay in enforcing the ELG Rule's provisions, including any weakening of the standards themselves, would be harmful to the public and to the environment surrounding the plant.

South Carolina

South Carolina's rivers, lakes, and streams are already overburdened by toxic pollutants. The state's waterways have suffered from severe and widespread mercury impairment for years. Delaying the ELG Rule's compliance deadlines will prolong and exacerbate that impairment.

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[27] *Id.* at 3.
[28] *Id.*
[29] Virginia Department of Environmental Quality, VPDES Permit Fact Sheet, Dominion Chesterfield Power Station, at 21 (Sept. 23, 2016) (Attachment 15), *available at* http://www.deq.virginia.gov/Portals/0/DEQ/Water/PollutionDischargeElimination/Coal_Ash/Chesterfield/VA0004146FinalFactSheet.pdf?ver=2016-10-31-163847-060.
[30] *Id.*
[31] Response to Comments, *supra* note 26, at 4.

South Carolina's coal burning plants are among the largest polluters of mercury, arsenic, and selenium in the nation, according to the EIP Report.[32] The Environmental Integrity Project reviewed 2015 data from the Toxics Release Inventory and discharge monitoring reports. The report highlights four South Carolina coal plants in its top ten lists of the largest mercury, arsenic, and selenium polluters. SCE&G's Williams Station was the seventh-largest mercury discharger among coal plants reporting to the Toxics Release Inventory in 2015.[33] SCE&G's Wateree Station and Santee Cooper's Winyah Generating Station ranked as the eighth and tenth highest arsenic polluters in 2015, respectively, among coal plants whose discharge monitoring reports are available on EPA's ECHO database.[34] Santee Cooper's Cross Generating Station had the fourth highest selenium discharges of coal plants reporting to the Toxics Release Inventory in 2015.[35]

Nevertheless, progress toward compliance with the 2015 ELG Rule is well underway at several facilities in South Carolina. For example, at its Cope Station, SCE&G has reportedly already achieved compliance with the Rule.[36] Cope Station uses dry ash handling and has a dry scrubber system and thus produces no fly ash, bottom ash or FGD wastewater discharges.[37] SCE&G's Wateree Station has already converted to dry ash handling. In 2012, SCE&G reduced bottom ash sluicing at Wateree by installing two remote submerged flight conveyors that dewater boiler bottom ash sluice and recycle overflow back to the boiler for reuse.[38] The conversion to dry bottom ash handling came in well below EPA's projected costs.[39] SCE&G likewise eliminated fly ash sluicing at Wateree in April 2016 with the construction of a dry fly ash handling system.[40] Meanwhile, SCE&G has already begun evaluating compliance pathways for the Rule's FGD wastewater requirements for its Wateree plant and Williams Station.[41]

SCE&G's Williams Station has converted to dry fly ash handling.[42] South Carolina Department of Health and Environmental Control ("DHEC") issued a new NPDES permit for Williams in November 2016. The permit requires compliance with the new ELGs on November

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[32] *See* EIP Report, *supra* note 1, at 14, 16.
[33] EIP Report, *supra* note 1, at 16.
[34] *Id.* at 14.
[35] *Id.* at 16.
[36] Response of SCE&G to S.C. Coastal Conservation League and Southern Alliance for Clean Energy's First Data Request, South Carolina Public Service Commission, Dkt. 2017-9-E, Resp. 2h at p. 4 (Apr. 11, 2016) (Attachment 16) ("Cope Station is already compliant with the EPA's effluent limitation guidelines.").
[37] *See* SCE&G 2017 Integrated Resource Plan, South Carolina Public Service Commission, Dkt. No. 2017-9-E, at 22 (Feb. 28, 2017) (Attachment 17), *available at* https://dms.psc.sc.gov/Attachments/Matter/f114b13d-d725-4f64-8851-6a0c7c752408.
[38] *Id.* at 23.
[39] Comments of Environmental Integrity Project, et al. on Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category; Proposed Rule, EPA, at 64, Dkt No. EPA-HQ-OW-2009-0819; EPA-HQ-RCRA-2013-0209 (posted Sept. 30, 2013).
[40] SCE&G 2017 IRP, *supra* note 37, at 23.
[41] Wateree and William ELG Compliance Strategy Technology Screening Workshop, Meeting Summary, prepared by ch2m (Oct. 5, 2016) (Attachment 18).
[42] SCE&G Response to Data Request, *supra* note 36 ("Both Wateree and Williams have compliant fly ash transport systems.").

1, 2018 unless the permittee submits a study outlining evaluations conducted to determine appropriate and effective treatment for bottom ash transport water, flue gas mercury control wastewater, and FGD wastewater and detailed information about compliance plans.[43] The new permit also incorporates the outer compliance deadline of December 31, 2023. Timely compliance with new ELG Rule requirements is particularly important at Williams. The plant sits on the Back River just upstream from the Bushy River Reservoir. This reservoir is the primary water source for the Charleston Water System, which serves over 400,000 people in the greater Charleston area.[44]

These examples demonstrate that South Carolina utilities are well-poised to comply with the ELG Rule's compliance deadlines. EPA's proposal could halt those efforts, as well as interfere with and undermine the permitting decision already made for Williams Station.

North Carolina

More than any other state in the Southeast, North Carolina's experience directly refutes industry's claim "that plants burning subbituminous and bituminous coal cannot comply with the rule's limitations and standards for FGD wastewater through use of EPA's model technology." 82 Fed. Reg. 26017, 26017 (June 6, 2017).

Duke Energy ("Duke") owns and operates multiple coal-fired power plants across North Carolina. Seven of these facilities received scrubber installations between 2005 and 2010, as required by the state's 2002 Clean Smokestacks Act.[45] While these scrubbers were effective at removing sulfur dioxide and other pollutants from the air emissions at those facilities, they produced wastestreams containing high concentrations of mercury, arsenic and selenium. Following severe selenium and other contamination at its coal ash sites, Duke has deployed treatment systems at its Allen, Belews Creek, and Roxboro plants to capture certain pollutants. The systems include a biological component for the successful treatment of selenium.[46] At Roxboro, a four-unit, 2,443 MW coal plant, an FGD-wastewater treatment system with biological treatment has been in place since February 2008.[47] The system has consistently achieved selenium effluent values of less than 10 µg/L, reflecting a removal efficiency of

[43] South Carolina Generating Company A.M. Williams Station NPDES Permit No. SC0003883, Part V.9, at 37 (Nov. 16, 2016) (Attachment 19).
[44] Charleston Water System, 2015 Water Quality Report (Attachment 20).
[45] N.C. Code §143-215.107D; *see also* N.C. Session Law 2002-4, S.B. 1078 (approved June 20, 2002).
[46] Steve Blankenship, *"Bugs" Used to Treat FGD Wastewater*, POWER ENGINEERING (Sept. 1, 2009) (Attachment 21), *available at* http://www.power-eng.com/articles/print/volume-113/issue-9/features/ldquobugsrdquo-used-to-treat-fgd-wastewater.html (last visited July 6, 2017).
[47] Jill Sonstegard et al., *Full Scale Operation of GE ABMet® Biological Technology for the Removal of Selenium from FGD Wastewaters* (undated) (Attachment 22), *available at* https://www.gewater.com/images/abmet/IWC_08-31-GE_Full_Scale_Operation_of_Biological_Technology_for_Selenium_Removal_in_FGD.pdf (last visited July 6, 2017).

99.3%.[48] Biological reactors have achieved similar reductions of selenium at Belews Creek and Allen.[49]

Duke's chosen vendor was General Electric ("GE"), a large company with the scale and resources to provide the technology and support needed to achieve ELG compliance. With its ABMet® system in use in North Carolina since 2009, GE has accumulated extensive experience and operational efficiencies in the use of its system. GE's system is working in North Carolina and could be deployed more widely there and across the Southeast.

Duke has also successfully deployed zero liquid discharge ("ZLD") at its Mayo Plant. The ZLD system was installed after water quality monitoring revealed increasing concentrations of contaminants in Mayo Lake associated with operation of the facility's scrubber.[50] Duke selected ZLD system as its ultimate control technology after initially deploying a bioreactor.[51] Duke considered the ZLD system to be the appropriate choice for the "unique conditions" at Mayo, which included the combination of multiple wastewater sources.[52]

Duke is also already moving toward dry handling of coal ash. Duke's North Carolina coal plants are required by state law to convert to dry fly ash handling by December 31, 2018, and dry bottom ash handling by December 31, 2019,[53] well ahead of the ELG Rule's outer compliance deadlines.

Given the above, it is no surprise that Duke reports being "well-positioned to meet the majority of the [ELG Rule's] requirements."[54] Duke's sole concern appears related to limits imposed on integrated gas combined-cycle facilities, not with the limits applicable to its coal-fired generation fleet.[55]

The overall situation in North Carolina is by no means ideal. All of Duke's coal ash impoundments remain a persistent source of surface and ground water contamination. Their illegal discharges of dangerous pollutants like arsenic, mercury, selenium, bromide, and hexavalent chromium, underscore the problem of the ELG Rule's exemption for legacy wastewaters. The only proven way to stop this ongoing pollution from leaking coal ash impoundments is to excavate the coal ash to lined, dry storage or recycle the ash into concrete. Duke's treated FGD wastewater remains a source of other pollutants, such as bromide, which forms carcinogens in downstream drinking water supplies treated with chlorine. But, as the nation's largest utility, Duke is demonstrating that timely compliance with the Rule's standards

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[48] *Id.* at 7.
[49] *Supra* note 46.
[50] Matthias Loewenberg et al., *Zero-Liquid Discharge System at Duke Energy Mayo Plant* (Attachment 23), *available at* https://www3.epa.gov/region1/npdes/merrimackstation/pdfs/ar/AR891.pdf (last visited July 6, 2017).
[51] *Id.*
[52] *Id.*
[53] N.C. Code § 130A-309.210(e), (f).
[54] Duke Energy Corporation, U.S. Securities & Exchange Comm'n Form 10-K, Comm'n file number 1-32853, at 80 (for fiscal year ending Dec. 31, 2016) (Attachment 24).
[55] *Id.*

and limitations, including for FGD wastewater, is feasible. Duke's experience thus belies the primary industry claim upon which EPA bases its suspension of the compliance deadlines. EPA must revoke its proposal so that the proven compliance mechanisms in place at four North Carolina facilities can be implemented throughout the Southeast.

III. Conclusion

The ELG Rule is a long overdue and necessary step toward relieving a heavy toxic burden on Southeastern waters. Utilities across our region already have ample time to comply with the Rule. For EPA to allow *more time* for industry to implement proven technologies, at the expense of our rivers, lakes and streams – and the communities who treasure and depend upon them – is both unreasonable and unlawful.

Sincerely,

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