

No. 15-60821

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FIFTH CIRCUIT**

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SOUTHWESTERN ELECTRIC POWER COMPANY; UTILITY WATER ACT GROUP; UNION ELECTRIC COMPANY, doing business as Ameren Missouri; WATERKEEPER ALLIANCE, INCORPORATED; ENVIRONMENTAL INTEGRITY PROJECT; SIERRA CLUB; AMERICAN WATER WORKS ASSOCIATION; NATIONAL ASSOCIATION OF WATER COMPANIES; CITY OF SPRINGFIELD, MISSOURI, by and through the Board of Public Utilities; DUKE ENERGY INDIANA, INCORPORATED,

*Petitioners,*

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; GINA MCCARTHY, in her official capacity as Administrator of the United States Environmental Protection Agency,

*Respondents.*

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Petition for Review of Final Administrative Actions of the  
United States Environmental Protection Agency

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**OPENING BRIEF OF PETITIONERS ENVIRONMENTAL INTEGRITY  
PROJECT, SIERRA CLUB, AND WATERKEEPER ALLIANCE, INC.**

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Dated: December 5, 2016

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## CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Rule 28.2.1 have an interest in the outcome of this case. These representations are made in order that the judges of this court may evaluate possible disqualification or recusal.

1. Petitioners: Southwestern Electric Power Company, Union Electric Company, Duke Energy Indiana, Inc., the City of Springfield, Missouri, American Water Works Association, and National Association of Water Companies
2. Petitioners and Intervenor-Respondents: Utility Water Act Group, Environmental Integrity Project, Sierra Club, and Waterkeeper Alliance, Inc.
3. Intervenor-Respondent: Clean Water Action
4. Respondents: United States Environmental Protection Agency; Gina McCarthy, Administrator, United States Environmental Protection Agency
5. Counsel for Southwestern Electric Power Company, Utility Water Act Group, Union Electric Company: Kristy A. N. Bulleit and Harry Margerum Johnson, III, Hunton & Williams LLP
6. Counsel for Duke Energy Indiana, Inc.: Sean M. Sullivan, Troutman Sanders LLP
7. Counsel for City of Springfield, Missouri: Thomas J. Grever, Shook, Hardy, and Bacon L.L.P.
8. Counsel for American Water Works Association and the National Association of Water Companies: John A. Sheehan, Clark Hill PLC
9. Counsel for United States Environmental Protection Agency and Gina McCarthy: Martin F. McDermott, United States Department of

Justice, and Avi S. Garbow, United States Environmental Protection Agency

10. Counsel for Sierra Club Only: Casey Roberts, Joshua D. Smith, Sierra Club
11. Counsel for Clean Water Action, Environmental Integrity Project, Sierra Club, and Waterkeeper Alliance, Inc.: Thomas Joseph Cmar and Matthew Gerhart, Earthjustice
12. Clean Water Action, Sierra Club, and Waterkeeper Alliance, Inc. are each non-profit organizations that maintain an open membership invitation to organizations, businesses, individuals, and the public in general. Accordingly, their memberships consist of many individual members.

Neither Clean Water Action, Environmental Integrity Project, Sierra Club, nor Waterkeeper Alliance, Inc. has parent companies, and no publicly-held company owns a 10% or greater interest in any of the aforementioned non-profit organizations.

Respectfully submitted,

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## **STATEMENT REGARDING ORAL ARGUMENT**

Pursuant to Local Rule 28.2.3, Petitioners request that the Court schedule oral argument in these consolidated cases. Petitioners respectfully submit that oral argument would assist the Court in disposing of this case, given the complexity of the rule at issue, the large number of parties, and the large number of arguments raised in the consolidated cases.

## **GLOSSARY**

<b>ACI</b>	activated carbon injection
<b>BAT</b>	best available technology economically achievable
<b>BCA</b>	Benefit and Cost Analysis
<b>BPT</b>	best practicable technology
<b>CWA</b>	Clean Water Act
<b>EA</b>	Environmental Assessment
<b>ELG(s)</b>	Effluent Limitations Guidelines
<b>EPA</b>	Environmental Protection Agency
<b>FGD</b>	flue gas desulfurization
<b>FGMC</b>	flue gas mercury control
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>RIA</b>	Regulatory Impacts Analysis
<b>TDD</b>	Technical Development Document
<b>TWPE</b>	toxic weighted pound equivalent

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## JURISDICTIONAL STATEMENT

This case challenges aspects of the final Effluent Limitations Guidelines (“ELGs”) Rule issued by the United States Environmental Protection Agency (“EPA”) under the Clean Water Act (“CWA” or “Act”), 80 Fed. Reg. 67,838 (Nov. 3, 2015) (“Final ELG Rule”). Petitioners Waterkeeper Alliance, Inc. and Environmental Integrity Project filed a petition for review in the Second Circuit Court of Appeals, and Petitioner Sierra Club filed a petition for review in the Ninth Circuit Court of Appeals, both within 120 days of publication of the final rule, in accordance with the Clean Water Act’s judicial review provision, 33 U.S.C. § 1369(b)(1) (providing that any interested person may obtain judicial review of any EPA action promulgating an effluent limitation by filing a petition for review in the Circuit Court of Appeals in which the person resides within 120 days of the final rule). Pursuant to 28 U.S.C. § 2112(a), the Judicial Panel on Multidistrict Litigation then transferred to this Circuit and consolidated all four petitions challenging the Rule that were filed within the first 10 days after the Rule’s effective date for purposes of judicial review.<sup>1</sup> *See* Consolidation Order, *In re: EPA, Effluent Limitation Guidelines*, MCP No. 136, ECF Doc. 3 (J.P.M.L. Dec. 8, 2015); Consolidation Order, *Sw. Elec. Power Co. v. EPA*, No. 15-60821, ECF Doc.

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<sup>1</sup> In addition to the two cases filed by Environmental Petitioners, the Utility Water Act Group and its members filed cases both in this Court and in the Eighth Circuit Court of Appeals.

00513301255 (5th Cir. Dec. 9, 2015). Three petitions for review of the Rule filed after the Panel's order were also consolidated with this case.<sup>2</sup>

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<sup>2</sup> These petitions were filed by the American Water Works Association and the National Association of Water Companies (originally filed in this Court); Duke Energy Indiana, Inc. (originally filed in the Seventh Circuit); and the City of Springfield, Missouri (originally filed in the Eighth Circuit).

## STATEMENT OF ISSUES

1. Whether EPA's decision to create separate, less stringent best available technology pollution limits for so-called "legacy wastewater" that a power plant generates and stores onsite prior to the compliance date for the rule, but does not discharge until after the compliance date, was arbitrary and capricious, an abuse of discretion, or otherwise unlawful because EPA failed to consider evidence that more effective treatment options were available to achieve more stringent pollution limits, and because EPA arbitrarily found that a purported lack of data supported setting less stringent limits instead of leaving the issue open for further, site-specific determination through power plant permit renewals.

2. Whether EPA's decision to set best available technology limits for leachate based on the use of surface impoundments is arbitrary and capricious, an abuse of discretion, or otherwise unlawful where EPA rejected more effective pollution control technologies which are available and affordable solely because of the size of the leachate wastestream relative to other power plant wastestreams, which is an unlawful basis for failing to require treatment of pollutant discharges with the best available technology.

## STATEMENT OF THE CASE

This case concerns EPA's failure to fully protect people and the environment from toxic water pollution as required by the Clean Water Act. The Act sets a national goal of eliminating pollution discharged into our nation's waterways. 33 U.S.C. § 1251(a)(1). To achieve that goal, EPA must establish increasingly stringent, technology-based limits, which are designed to spur industry to adopt new technologies for reducing, and ultimately eliminating, water pollution. *Id.* § 1311. The rule at issue here establishes technology-based limits on water pollution from steam electric power plants, which are by far the largest industrial source of water pollution in the country. Final Environmental Assessment ("EA"), Index.12553 at 3-15, Table 3-3.<sup>3</sup> Every year, power plants dump into rivers, lakes, and streams billions of gallons of wastewater containing a slew of toxic pollutants such as arsenic, mercury, and lead. Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, Final Rule, 80 Fed. Reg. 67,838, 67,838-40 (Nov. 3, 2015). The pollutants in the wastewater cause serious health problems, ranging from reduced IQ to cancer. *Id.* at 67,838.

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<sup>3</sup> Consistent with an agreement among all of the petitioners in this proceeding, Environmental Petitioners cite to documents in the administrative record according to the following format: a title for the document appears first, followed by the row in which the document appears in EPA's Administrative Record Index, and then the pincite. For example, "Final Environmental Assessment, Index.12553 at 3-4" refers to page 3-4 of the Final Environmental Assessment, which is listed in row 12553 of the Administrative Record Index.

Power plant water pollution, particularly selenium, is also toxic to fish and other aquatic life. Final EA, Index.12553 at 3-4 to 3-5.

Despite the huge volumes of wastewater discharged by power plants, and the extensive damage to people and the environment from such pollution, before issuing this rule, EPA had not updated the best available technology economically achievable (“BAT”) limits for power plants since 1982. EPA proposed to update the regulations for power plants in 2013, 78 Fed. Reg. 34,432 (June 7, 2013), and finalized the regulations at issue here in 2015, 80 Fed. Reg. 67,838 (Nov. 3, 2015).

In total, seven petitions for review are consolidated in the current proceedings, pursuant to the order of the Judicial Panel on Multidistrict Litigation. *See* Consolidation Order, *In re: EPA, Effluent Limitation Guidelines*, MCP No. 136, ECF Doc. 3 (J.P.M.L. Dec. 8, 2015); Consolidation Order, *Sw. Elec. Power Co. v. EPA*, No. 15-60821, ECF Doc. 00513301255 (5th Cir. Dec. 9, 2015). Petitioners Waterkeeper Alliance, Inc. and Environmental Integrity Project, who first filed their petition for review in the Second Circuit Court of Appeals,<sup>4</sup> and Petitioner Sierra Club, which first filed its petition for review in the Ninth Circuit Court of Appeals,<sup>5</sup> are referred to collectively herein as “Environmental Petitioners.” Other petitioners in this proceeding include the Utility Water Act Group and two of its members, who originally filed petitions for review both in

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<sup>4</sup> *Waterkeeper Alliance, Inc. v. EPA*, No. 15-3773 (2d Cir. filed Nov. 23, 2015).

<sup>5</sup> *Sierra Club v. EPA*, No. 15-73578 (9th Cir. filed Nov. 23, 2015).



this Court and in the Eighth Circuit Court of Appeals;<sup>6</sup> the American Water Works Association and the National Association of Water Companies, who filed a petition for review in this Court;<sup>7</sup> the City of Springfield, Missouri, which filed a petition for review in the Eighth Circuit Court of Appeals;<sup>8</sup> and Duke Energy Indiana, Inc., which filed a petition for review in the Seventh Circuit.<sup>9</sup>

## **I. WATER POLLUTION FROM POWER PLANTS**

The final rule at issue in this case regulates water pollution, including mercury, arsenic, selenium and other toxic metals, discharged from steam electric power plants, which generate electricity by heating water to generate steam that drives turbines. The rule applies to power plants<sup>10</sup> that use nuclear fuel or fossil fuels such as coal, oil, or natural gas. *See* 80 Fed. Reg. at 67,839 n.1; *see also* 40 C.F.R. § 423.10.

Power plants account for about 30 percent of all the toxic water pollution discharged by industrial sources in the United States. 80 Fed. Reg. at 67,839-40. Indeed, power plants discharge more toxic water pollution than any other industry, and more than the next two largest polluting industries combined.

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<sup>6</sup> *Sw. Elec. Power Co. v. EPA*, No. 15-60821 (5th Cir. filed Nov. 19, 2015); *Union Elec. Co. v. EPA*, No. 15-3658 (8th Cir. filed Nov. 19, 2015).

<sup>7</sup> *Am. Water Works Ass'n v. EPA*, No. 15-60821 (5th Cir. filed Mar. 7, 2016).

<sup>8</sup> *City of Springfield, Mo. v. EPA*, No. 16-1647 (8th Cir. filed Mar. 15, 2016).

<sup>9</sup> *Duke Energy Indiana, Inc. v. EPA*, No. 16-1585 (7th Cir. filed Mar. 16, 2016).

<sup>10</sup> Throughout this brief, Petitioners use the term “power plants” to refer to only the categories of power plants regulated by the final ELG Rule. *See* 40 C.F.R. § 423.10.

Pollutant Loadings From Top 10 Point Source Categories<sup>11</sup>

<b>Point Source Category</b>	<b>Total Toxic-Weighted Pounds Equivalent (“TWPE”) Discharged Annually<sup>12</sup></b>
Steam Electric Industry	2,680,000
Pulp, Paper and Paperboard	1,030,000
Petroleum Refining	1,030,000
Nonferrous Metals Manufacturing	994,000
Fertilizer Manufacturing	826,000
Organic Chemicals, Plastics, Synthetic Fibers	649,000
Ore Mining and Dressing	448,000
Inorganic Chemicals Manufacturing	299,000
Waste Combustors	254,000
Textile Mills	250,000

This rule is the first update to the federal regulations for water pollution from this industry in over 30 years, despite significant advancements in the processes used by the industry and in available wastewater treatment technologies. *Id.* at 67,840. As power plants have adopted more advanced technologies to reduce air pollution, such as mercury and sulfur dioxide, from being emitted out of their stacks, much of that captured air pollution has been transferred to the plants’ wastewater discharges for disposal instead. *Id.* at 67,840, 67,846.

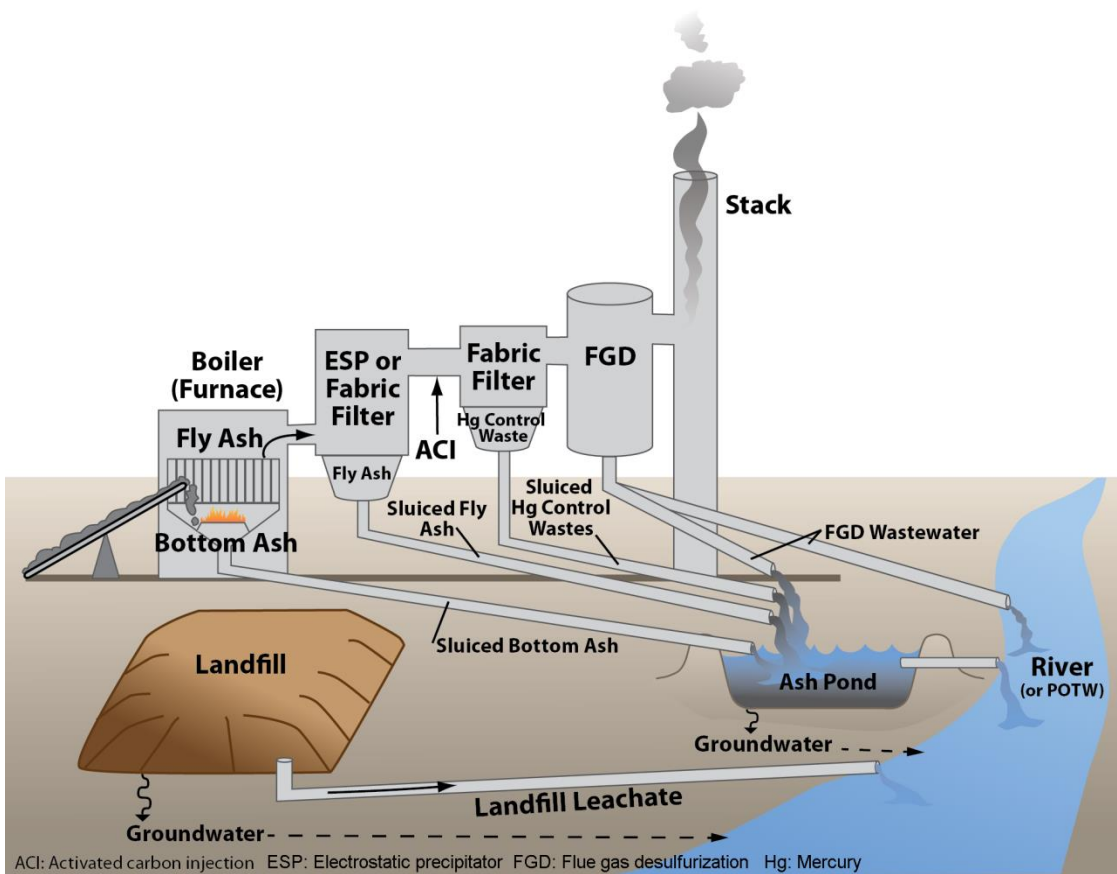
<sup>11</sup> Final EA, Index.12553 at 3-15, Table 3-3.

<sup>12</sup> TWPE is the mass of pollutants times the toxic weighing factor for the pollutant. EPA uses the resulting figure to compare the impact of pollutants that have different toxicities. *See* Final EA, Index.12553 at 3-12.

**A. Types of Wastewater Discharged by Power Plants**

The rule regulates six wastestreams generated by power plants, including fly ash and bottom ash transport water, scrubber wastewater, and combustion residual leachate. *Id.* at 67,850-54.

The following figure illustrates the types of wastewater produced by power plants.<sup>13</sup>



Fly ash and bottom ash are particles that remain after a fuel, such as coal or oil, is burned. Final Technical Development Document (“TDD”), Index.12840 at

<sup>13</sup> EPA, Steam Electric Power Generating Effluent Guidelines, 2015 Final Rule, Key Wastestreams, *available at* <https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2015-final-rule> (last updated Nov. 29, 2016).

4-6. Fly ash is collected from the plant's flue gases using a fabric filter or electrostatic precipitator ("ESP") and transported away using either water or dry methods. *Id.* at 4-19 to 4-22. Bottom ash accumulates in the bottom of the boiler before being flushed away using either wet or dry systems. *Id.* at 4-24. Nearly 300 plants dispose of bottom ash, and over 100 plants dispose of fly ash, by using water to transport the ash to an impoundment, which then discharges it to river, lake, or stream. *See* 80 Fed. Reg. at 67,846; Final TDD, Index.12840 at 6-10, Table 6-6. Plants that have installed air pollution controls commonly known as scrubbers (more technically known as "flue gas desulfurization" or "FGD" technology) also discharge wastewater containing metals and other pollutants that the scrubber system has removed from the air emissions. *See* 80 Fed. Reg. at 67,846. Power plants often send this wastewater to impoundments, as well, which then discharge it to rivers, lakes, and streams. *See* Final TDD, Index.12840 at 7-3 to 7-4.<sup>14</sup>

Combustion residual leachate refers to liquids that drain out of a landfill or surface impoundment containing constituents of coal ash or materials from the plant's air pollution control systems. *See* 80 Fed. Reg. at 67,847. Data gathered by EPA indicates that leachate contains many of the same pollutants as scrubber wastewater, albeit at generally lower concentrations, and is therefore amenable to

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<sup>14</sup> Systems installed to remove mercury from a power plant's air emissions, generally known as "flue gas mercury control" ("FGMC") or "activated carbon injection" ("ACI"), may also generate a wastewater stream. 80 Fed. Reg. at 67,847.

similar treatment. Final TDD, Index.12840 at 7-48. If the landfill or impoundment is lined, the leachate may be collected and then discharged to surface waters. *Id.* at 4-34 to 4-36, 7-48. However, surface impoundments and landfills are often unlined or poorly lined, which results in leachate moving directly to groundwater and surface waters. 80 Fed. Reg. at 67,847; Final TDD, Index.12840 at 4-35; Final EA, Index.12553 at 4-10. In some cases, landfills or wet impoundments cover hundreds of acres, fill in local wetlands, and turn streams into drainage ditches for toxic wastewater that either leaks or is discharged from these sites. Final EA, Index.12553 at 3-28 to 3-37, Index.12554 at A-14 to A-43.

Over 100 plants in the country discharge combustion residual leachate, and each plant discharges an average of 80,000-90,000 gallons per day. Final TDD, Index.12840 at 6-12, Table 6-8. EPA estimates that the “industry-level combustion residual leachate loadings” total 70,300 toxic-weighted pound equivalents, or TWPE, per year. *Id.* at 10-39, Table 10-18. If coal ash leachate were its own industrial category, it would be ranked 18th among industries for pollutant loadings— with significantly more toxic loadings than all of the discharges from industries such as coal mining (40,600 TWPE), sugar processing (32,900 TWPE), or pesticide chemicals (22,700 TWPE). *See* EPA, 2015 Annual Effluent Guidelines Review Report, EPA-821-R-16-002, at 2-26, Table 2-9 (June

2016), *available at* [https://www.epa.gov/sites/production/files/2016-06/documents/2015-annual-eg-review-report\\_june-2016.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/2015-annual-eg-review-report_june-2016.pdf).

### **B. Pollutants Contained in Power Plant Wastewater**

Wastewaters from power plants, including scrubber wastewater, ash transport water, and combustion residual leachate contain an array of pollutants. *See* Final TDD, Index.12840 at 6-6 to 6-14, 6-19 to 6-21, 6-23 to 6-26. These pollutants include nutrients that contribute to algal blooms, dissolved solids (salts), and a slew of toxins—including arsenic, lead, mercury, and selenium—that harm human health and aquatic life in even small doses. *See* Final EA, Index.12553 at 3-2 to 3-12. As EPA explains, “[t]he pollutants discharged by this industry can cause severe health and environmental problems in the form of cancer and non-cancer risks in humans, lowered IQ among children, and deformities and reproductive harm in fish and wildlife.” 80 Fed. Reg. at 67,838. The following table highlights the harm to human health from the pollutants in power plant wastewater.

<b>Pollutant</b>	<b>Pounds Discharged Each Year by Power Plants<sup>15</sup></b>	<b>Health Effects</b>
Arsenic	29,600	“[A]ssociated with increased risk of [] liver and bladder cancer . . . . [P]otent endocrine disruptor at low, environmental relevant levels.” Can also lead to “dermal, cardiovascular,

<sup>15</sup> Final EA, Index.12553 at 3-14.

		and respiratory effects,” and “[c]hronic exposure via drinking water has been associated with excess incidence of miscarriages, stillbirths, preterm births, and low-birth weights.” Final EA, Index.12553 at 3-3, 3-6.
Lead	19,700	“[S]erious damage to the brain, kidneys, nervous system, and red blood cells,” especially in children. Final EA, Index.12553 at 3-3, 3-8.
Mercury	1,490	“[H]ighly toxic compound that represents an environmental and human health risk even in small concentrations.” Detailed Study Report, Index.47 at 6-5. Mercury is a bio-accumulating poison that impairs brain development in children and causes nervous system and kidney damage in adults. Final EA, Index.12553 at 3-4, 3-6.
Selenium	140,000	“In humans, short-term exposure at levels above the [safe drinking water level] can cause hair and fingernail changes, damage to the peripheral nervous system, and fatigue and irritability. Long-term exposure can damage the kidney, liver, and nervous and circulatory systems.” Final EA, Index.12553 at 3-4. “EPA has documented numerous damage cases where selenium in [combustion] wastewater discharges resulted in fish consumption advisories being issued for surface waters and selenium [safe drinking water level] being exceeded in ground water.” <i>Id.</i> at 3-5.

Water pollution from power plants makes over 4,000 miles of rivers unsafe

for use as a source of drinking water or for fish, and makes over 6,000 miles of rivers unsafe for children to use for recreational fishing. Final EA, Index.12553 at 7-35. EPA estimates that roughly 30 million people are exposed to fish contaminated by coal ash pollutants, including over 3 million young children exposed to lead and over 400,000 children exposed to mercury *in utero*. Final Benefit and Cost Analysis (“BCA”), Index.12843 at 3-4, 3-9, 3-16.

According to EPA, approximately 62 percent of lakes, ponds, and reservoirs, and 43 percent of rivers and streams receiving coal plant waste may have reduced water quality as a direct result of that pollution. Final EA, Index.12553 at 6-1. Nearly half of those waterways have water quality worse than the EPA’s National Recommended Water Quality Criteria, and nearly a fifth of them violate standards for drinking water. *Id.* at 6-2, Table 6-1. Over a quarter of the waters receiving power plant discharges have been formally listed under the Clean Water Act as having water quality impaired by a pollutant found in coal combustion wastewater, with mercury being the most common cause of impairment. *Id.* at 3-38, 3-42.

Power plant discharges frequently cause fish to be unsafe for people to eat and degrade drinking water sources. Nearly half of the immediate receiving waters (42 percent) are already under fish consumption advisories for mercury or lead—pollutants present in power plant wastewater. Final EA, Index.12553 at 3-44. A third of power plants are located within 5 miles of a drinking water intake or



reservoir, and 81% of plants are located within 5 miles of a public well. *Id.* at 3-47. Virtually all (90%) waters receiving power plant discharges have a drinking water resource within 5 miles of the discharge location. *Id.* at 3-38. Although public drinking water system operators are responsible for treating source water to remove these pollutants, doing so increases the costs of treatment. *Id.* at 3-46.

In addition to damaging human health, these pollutants harm fish and wildlife. Selenium is acutely poisonous to fish and other aquatic life even in small doses; concentrations below eight parts per billion can kill fish, and lower concentrations can leave fish deformed or sterile. Detailed Study Report, Index.47 at 6-4; Final EA, Index.12553 at 3-4 to 3-5. Selenium also bioaccumulates and interferes with fish reproduction, meaning that it can permanently destroy wildlife populations in lakes and rivers as it works its way through the ecosystem over a period of years. Final EA, Index.12553 at 3-4 to 3-5.

### **C. Treatment of Power Plant Wastewater**

Many power plants discharge toxic wastewater to the nation's rivers, lakes, and streams after allowing particles in the wastewater to settle out over time in a surface impoundment (also commonly referred to as an "ash pond" or "settling pond"). 80 Fed. Reg. at 67,840. As EPA found in this rulemaking, however, impoundments are an ineffective method of treating power plant wastewater, for a variety of reasons. *Id.* at 67,851. Settling can remove some pollutants found in

particulate form (i.e., suspended solids), but it is ineffective at removing pollutants that are dissolved in the wastewater. *Id.* Certain pollutants, such as selenium, boron, and magnesium, are more likely to be present in the wastewater in dissolved form, especially under the acidic conditions found in many impoundments. *Id.* Even pollutants found in particulate form may not be removed effectively because the composition of fly ash and scrubber wastewater can impede the settling process. *Id.* Impoundments are also subject to seasonal turnover, in which the cold upper layer of water sinks, causing the resuspension of solids that had settled into the lower layers of the impoundment. *Id.* In addition to these problems with the effectiveness of impoundments to treat wastewater, EPA has documented many cases of drinking water contamination caused by impounded wastewaters leaking into groundwater. *Id.* at 67,840.

Some power plants commingle wastewaters from different sources within the plant, while others manage the wastewater in separate impoundments. *Id.* at 67,855. In total, there are over 1,000 impoundments holding power plant wastewater with a combined capacity of nearly 750 billion gallons. Final BCA, Index.12843 at 6-1, 6-5. The volume of these impoundments varies widely, but can be extremely large. For example, in 2009, the Tennessee Valley Authority Kingston impoundment dike collapsed, resulting in a catastrophic coal ash spill that released 1.1 billion gallons of ash slurry, flooded more than 300 acres of land

with coal ash waste, contaminated a major drinking water source, and destroyed several homes and properties.. *Id.* at 6-7; 78 Fed. Reg. at 34,441, 34,467 n.24.

In this rulemaking, EPA found that many power plants are increasingly using more advanced technologies to treat wastewater in order to more effectively remove pollutants, such as chemical precipitation, biological treatment, and evaporation. 80 Fed. Reg. at 67,846.<sup>16</sup> EPA concluded that “[c]hemical precipitation and biological treatment are more effective than surface impoundments at removing both soluble and particulate forms of metals, as well as other pollutants.” *Id.* at 67,851. EPA found that the biological treatment technology that forms the basis for EPA’s scrubber wastewater effluent limitations in the rule had been “tested at power plants for more than ten years and demonstrated in full-scale systems for more than seven years.” *Id.* at 67,845. Hundreds of power plants entirely avoid generating ash transport wastewater discharges by handling coal ash in a dry or closed-loop system. For example, more than 80 percent of coal units built in the last 20 years use dry bottom ash handling systems or closed-loop systems that do not discharge wastewater. *Id.* at 67,852.

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<sup>16</sup> Chemical precipitation involves treatment of wastewater in a tank with chemicals that cause the pollutants in the wastewater to change form in a way that allows them to be filtered out. Biological treatment employs microorganisms that make pollutants easier to remove from wastewater. Evaporation technologies concentrate pollutants in wastewater, eventually capturing them as a solid waste material that can be disposed of in a landfill, potentially eliminating the need for wastewater discharges. *See* Final TDD, Index.12840 at 7-1 to 7-50.

Since 1982, all new generating units have been required to eliminate fly ash wastewater discharges, while existing units have been gradually converting to dry methods of handling fly ash, such that 80 percent of all units do not discharge fly ash wastewater. *Id.*

## II. THE CLEAN WATER ACT

In adopting the Clean Water Act in 1972, Congress responded to the chronic failure of previous legislation to address water pollution effectively. Congress “was confronted . . . by continuing and increasing massive pollution which was turning many American rivers into open sewers, was threatening the extinction of marine life in several of the Great Lakes, as well as our ocean harbors, and was endangering the purity of our waters for drinking, for water recreation, for crop irrigation, and for industrial usage.” *Am. Frozen Food Inst. v. Train*, 539 F.2d 107, 115 (D.C. Cir. 1976). Earlier versions of federal water pollution legislation had attempted to control water pollution by determining “which polluter caused what pollution,” a mandate that “proved over the years to be an impractical task.” *Id.*

The 1972 Clean Water Act represented a “wholly new approach” to protecting our country’s waterways. *Id.* Congress replaced a water quality-based framework that allocated responsibility for pollution that had already occurred with a technology-based framework that prohibits the discharge of pollutants without a permit requiring application of wastewater treatment technology. *See id.* at 115-

16; *see also Columbus & Franklin Cnty. Metro. Park Dist. v. Shank*, 600 N.E.2d 1042, 1066 (Ohio 1992) (citing S. Rep. No. 414, 92d Cong., 2d Sess. 8, *reprinted in* 1972 U.S.C.C.A.N. 3668, 3675).

The Clean Water Act sets a national goal of eliminating water pollution. 33 U.S.C. § 1251(a)(1). To achieve the national goal, the Clean Water Act requires facilities to meet a series of increasingly stringent, technology-based effluent limitations, which are the centerpiece of the Act. *Tex. Oil & Gas Ass'n v. EPA*, 161 F.3d 923, 927 (5th Cir. 1998) (noting that the Clean Water Act was designed to eliminate water pollution “through a system of effluent limitations guidelines”); *Natural Res. Def. Council, Inc. v. EPA*, 859 F.2d 156, 202 (D.C. Cir. 1988) (“[T]he primary purpose of the CWA is the *elimination* of all pollutant discharges . . . . The central mechanism for achieving this goal is promulgation and imposition of increasingly stringent effluent limits”).

For pollutants the Clean Water Act classifies as either toxic (such as heavy metals) or “nonconventional” (such as nitrogen), the first standards to be met were best practicable control technology, which Congress intended to apply to all pollutant dischargers by 1977, 33 U.S.C. § 1311(b)(1)(A), followed by the more stringent best available technology, which Congress intended to apply to all pollutant dischargers by 1989, *id.* § 1311(b)(2). These effluent limitations must be based on effluent limitation guidelines, or ELGs, promulgated by EPA, which are

nation-wide, minimum standards for categories of sources. *E.I. DuPont de Nemours & Co. v. Train*, 430 U.S. 112, 127, 129 (1977). These national standards set a federal floor for environmental protection, based on application of wastewater treatment technology, in order to avoid a “race to the bottom” by state regulators. *See Natural Res. Def. Council, Inc. v. Train*, 510 F.2d 692, 709-10 (D.C. Cir. 1974).

The first set of standards required by the Act, based on best practicable control technology (“BPT”), are based on the average of the best performing facilities in the industry, and EPA must consider costs in relation to benefits in setting those standards. *See* 33 U.S.C. § 1314(b)(1)(B); 80 Fed. Reg. at 67,843. The more advanced standards, best available technology or BAT, do not require EPA to weigh costs against benefits. 33 U.S.C. § 1314(b)(2)(B). In developing BAT effluent guidelines, EPA must consider “the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.” *Id.*

This Court has held that “the basic requirement for BAT effluent limitations is only that they be technologically and economically achievable.” *Am. Petroleum Inst. v. EPA*, 858 F.2d 261, 265-66 (5th Cir. 1988). A technology is “available” if

it is in use in the industry, even if only by the best-performing plant in the industry, or if it can be demonstrated to be available through pilot studies or its use in other industries. *See Chem. Mfrs. Ass'n v. EPA*, 870 F.2d 177, 226 (5th Cir. 1989); *Am. Petroleum Inst.*, 858 F.2d at 265; *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985). A technology is economically achievable if the costs can be reasonably borne by the industry as a whole. *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 516 (2d Cir. 2005); *Rybachek v. EPA*, 904 F.2d 1276, 1290-91 (9th Cir. 1990). Congress intended BAT to be “technology-forcing,” to “push[] industries toward the goal of zero discharge as quickly as possible.” *Kennecott*, 780 F.2d at 448.

Congress determined that, under the BAT standard, investments in pollution controls are warranted to the greatest degree feasible, and therefore the inquiry is not whether the costs of a given control are “worth it” in EPA’s estimation. Instead, EPA’s determination of economic achievability must be guided by the Supreme Court’s holding that BAT limits “represent[] a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges.” *EPA v. Nat’l Crushed Stone Ass’n*, 449 U.S. 64, 74 (1980). In developing BAT guidelines, costs are to be given even less importance than in developing the less stringent BPT guidelines. Congress underscored this by including a requirement to balance costs against benefits in promulgating BPT

guidelines, but omitting any cost-benefit analysis from the development of BAT guidelines. *Compare* 33 U.S.C. § 1314(b)(1)(B), *with id.* § 1314(b)(2)(B). As the D.C. Circuit has explained, Congress affirmatively rejected amendments which would have required cost-benefit balancing for BAT. *Weyerhaeuser v. Costle*, 590 F.2d 1011, 1046 (D.C. Cir. 1978).

### **III. EPA’S EFFLUENT LIMITATIONS GUIDELINES FOR POWER PLANTS**

The Clean Water Act requires EPA to reevaluate its effluent limitations every five years, 33 U.S.C. § 1311(d), and the ELGs every year, *id.* § 1314(b). However, prior to the rule at issue in this case, EPA had last updated effluent limitations guidelines for power plants in 1982. 47 Fed. Reg. 52,290 (Nov. 19, 1982). The 1982 guidelines did not set any specific limits on the discharge of toxic metals in power plant wastewater. *See* 40 C.F.R. § 423.12(b)(3)-(4); 80 Fed. Reg. at 67,840-41.<sup>17</sup> In the 1982 rulemaking, EPA acknowledged that future revisions would be necessary to address wastewaters from air pollution control systems, specifically scrubbers. *See* 47 Fed. Reg. at 52,291 (“reserving effluent limitations for four types of wastewaters for future rulemaking” including “[f]lue gas desulfurization waters”).

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<sup>17</sup> The 1982 ELG rule did set BPT limits on total suspended solids, *see* 40 C.F.R. § 423.12(b)(3)-(4), which do require some reduction of metals in particulate form in coal combustion wastewater.



In the absence of nationwide best available technology limits on specific toxic pollutants in power plant wastewater, it was left up to state and regional permitting agencies to set limits on a case-by-case basis.<sup>18</sup> State permitting agencies largely failed to do so. A 2013 report found that nearly 70 percent of power plant permits (188 out of 274) set no specific limits on how much toxic pollutants such as arsenic, lead, and mercury these plants can discharge. *See* Environmental Integrity Project *et al.*, Closing the Floodgates: How the Coal Industry is Poisoning Our Water and How We Can Stop It, Index.9829 at 7; *see also* Comments of Environmental Integrity Project *et al.*, Exhibit 19, Index.9071 (collecting 18 letters in which EPA Regional Offices objected to proposed state permits for failure to conduct case-by-case BAT determinations). Thus, in practice, most power plants have for decades been able to dump significant amounts of toxic pollutants into rivers, lakes, and streams.

Over thirty years after EPA had last updated the power plant ELGs, EPA issued the rule at issue here. 80 Fed. Reg. at 67,838. Among other things, the final

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<sup>18</sup> *See* 40 C.F.R. § 125.3(a), (c)(2) (establishing that, “to the extent that EPA-promulgated effluent limitations are inapplicable,” technology-based treatment requirements “must be imposed” on a case-by-case basis); EPA Memorandum from James Hanlon, NPDES Permitting of Wastewater Discharges at Attachment A, June 7, 2010, Index.9507 (providing guidance regarding the existing statutory obligation to establish technology-based effluent limits for scrubber wastewater prior to the finalization of the ELGs); *see also* 33 U.S.C. § 1311(b)(2)(A)(i) (point sources “shall” achieve “effluent limitations” which “shall require application of [BAT]” pursuant to EPA regulations).

rule sets new, more stringent technology-based limits on the discharge of toxic metals in scrubber wastewater, and prohibits the discharge of any fly ash or bottom ash transport water. *Id.* at 67,841; 40 C.F.R. § 423.13(g)(1), (h)(1), (k)(1). Of relevance to this petition, for other wastestreams, such as leachate, EPA set the best available technology, or BAT, limits equal to the prior best practicable technology, or BPT, limits. 80 Fed. Reg. at 67,841. These BPT limits restricted discharges of total suspended solids and oil and grease, but they did not specifically limit any toxic pollutants, such as metals, or nutrients found in coal combustion wastewater.<sup>19</sup> *Id.*; *see also* 40 C.F.R. § 423.12(b)(11). By setting the BAT limits equal to the BPT limits for leachate, the final rule will allow power plants to discharge unlimited amounts of dissolved arsenic, lead, mercury, and other toxic metals in leachate.<sup>20</sup>

The final rule contains an extended compliance timeline for the new effluent limitations—allowing until the end of 2023 for compliance if needed. 80 Fed. Reg. at 67,854. The actual compliance date for a particular plant will be determined by the entity that issues the plant’s National Pollutant Discharge Elimination System (“NPDES”) permit—typically the relevant state environmental

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<sup>19</sup> The sole exception is that the BPT standards set limits on the discharge of copper and iron from metal cleaning wastes. *See* 40 C.F.R. § 423.12(b)(5).

<sup>20</sup> Limits on these metals could still be imposed to assure compliance with applicable state or federal water quality standards, *see* 33 U.S.C. § 1311(b)(1)(C), but as described above, states have been extremely lax in imposing water quality-based effluent limits.

agency—based on information provided by the permittee about how long they need to study, design, and construct the technology needed to meet the standards, as well as grid reliability considerations. *Id.* The compliance date for some power plants could be further delayed if the permit authority does not renew the NPDES permit for the plant in a timely manner.<sup>21</sup>

Scrubber and ash wastewaters generated prior to the date that the new ELGs take effect at a particular plant, so-called “legacy wastewater,” are (like leachate) exempted from EPA’s new, more stringent limits on toxic metals. For this legacy wastewater, EPA set the BAT limits “equal to the previously promulgated BPT limitations.” 80 Fed. Reg. at 67,854. In other words, for legacy wastewater, EPA imposed no specific limits on nutrients or toxic metals. Thus, EPA created two sets of BAT limits, based on when the wastewater is generated: wastewater generated before the compliance date is considered “legacy wastewater” and is subject to extremely lax BAT limits; wastewater generated after the compliance date is subject to more stringent BAT limits. What this would mean in practice is that, once a facility has begun operating wastewater treatment systems for meeting the new BAT limits, it would only have to use those systems to treat newly

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<sup>21</sup> See National Pollutant Discharge Elimination System (NPDES): Applications and Program Updates, Proposed Rule, 81 Fed. Reg. 31,344, 31,356 (May 18, 2016) (documenting over 17,000 NPDES permits that have not been renewed every five years as required by the Clean Water Act, and noting that such “lengthy administrative continuance of a permit can significantly delay implementation of new effluent guidelines”).

generated wastewater. Under this legacy wastewater exemption, a facility can simply discharge any legacy wastewater that is already stored in an impoundment as of the rule's compliance – even where that impoundment is holding millions of gallons of toxic wastewater – without requiring any additional treatment.

### **SUMMARY OF ARGUMENT**

EPA has failed to comply with the Clean Water Act's mandate to eliminate water pollution as quickly as possible. While the final ELG rule makes great strides in requiring power plants to reduce water pollution from their three largest wastestreams, EPA's rule falls short of the Clean Water Act's requirements in two key respects. First, EPA's decision to enshrine surface impoundments as the best available technology to treat the many toxic and nonconventional pollutants in legacy wastewater is directly contrary to the evidence that surface impoundments are ineffective, particularly for dissolved forms of pollutants, and that more effective technologies are both available and affordable. Indeed, for non-legacy ash transport and scrubber wastewater, EPA chose more advanced technologies as the basis for BAT limits, precisely because of the ineffectiveness of surface impoundments.

EPA attempted to justify the BAT limits for legacy wastewater by claiming that EPA lacked the data necessary to base the limits on the use of more effective technologies. But any lack of data is a problem of EPA's own making. EPA was

aware that some power plants use chemical treatment for legacy wastewater, but it decided not to gather the necessary data to evaluate the treatment used by those plants. Nor has EPA claimed that there were technical obstacles to obtaining this data. EPA cannot negate the Act's requirements by choosing not to gather the data it needs to comply with the statute, particularly where EPA had over 30 years to gather data. Moreover, when confronted with a lack of data about a wastestream, EPA has sometimes refrained from establishing BAT on a nationwide basis, and instead has left BAT to be determined by permit authorities on a case-by-case basis. EPA arbitrarily rejected doing so here, instead locking in surface impoundments – a technology which EPA admits is ineffective – as the “best available” technology for legacy wastewater.

The BAT limits for leachate are similarly flawed. As with legacy wastewater, EPA based the BAT limits for leachate on the use of surface impoundments, despite evidence that some power plants currently use more effective technologies, such as chemical precipitation, for treating leachate. EPA conceded that chemical treatment is technologically available, and EPA's record indicates that it is economically achievable as well. EPA rejected chemical treatment as BAT solely because leachate is a smaller wastestream than other wastestreams regulated by the rule.

The text, structure, and history of the Clean Water Act indicate that Congress did not intend for EPA to reject available and affordable technologies as BAT based on the water quality impacts of a discharge, or on the benefits of regulating the discharge. As this Court has held, to be considered BAT, a technology need only be technologically and economically achievable, yet EPA rejected technologies as BAT for leachate that meet those two criteria. And this Court has already held that EPA cannot consider water quality impacts when setting BAT limits, as EPA did here.

The BAT limits for leachate threaten to set a precedent that would allow EPA to make subjective judgments unmoored from any statutory or regulatory criteria as to when a wastestream is large enough to warrant more stringent BAT limits. Congress wisely made such considerations irrelevant when setting BAT limits, and the wisdom of Congress's decision is borne out by EPA's action here: contrary to EPA's claim that leachate is a "small" wastestream, power plant leachate would be the 18th largest industrial wastestream in the country, if it were considered its own industry.

Accordingly, the Court should vacate and remand the BAT limits for legacy wastewater and leachate.

## ARGUMENT

### I. STANDARD OF REVIEW

Courts review agency interpretations of a statute according to the two-step framework announced in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). Under step one, a court determines “whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Id.* at 842-43. However, if the intent of Congress is not clear, a court proceeds to *Chevron* step two, and asks whether the agency’s interpretation is “a permissible construction of the statute.” *Id.* at 843; *see also Associated Builders & Contractors of Tex., Inc. v. Nat’l Labor Relations Bd.*, 826 F.3d 215, 219 (5th Cir. 2016).

Under *Chevron* step one, a statutory provision should be read in concert with the “surrounding provisions, as well as the broader context of the statute as a whole.” *Khalid v. Holder*, 655 F.3d 363, 367 (5th Cir. 2011), *abrogated on other grounds by Scialabba v. Cuellar de Osorio*, 134 S.Ct. 2191 (2014). “[I]n construing an Act of Congress Courts must construe what Congress has written and cannot add, subtract, delete, or distort the words Congress chose to use.” *Schattman v. Tex. Employment Comm’n*, 459 F.2d 32, 38 (5th Cir. 1972).

Under the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 551–59, 701–06, an agency rule shall be set aside if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). An agency rule is arbitrary and capricious “if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The Court must determine whether the rule “bears a rational relationship to the statutory purposes” and whether “there is substantial evidence in the record to support it.” *Mercy Hosp. of Laredo v. Heckler*, 777 F.2d 1028, 1031 (5th Cir. 1985). This Court “may not supply a reasoned basis for the agency’s action that the agency itself has not given.” *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43 (quoting *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947)).

## **II. ENVIRONMENTAL PETITIONERS HAVE STANDING TO BRING THIS CHALLENGE.**

In the final rule, EPA established best available technology, or BAT, limits for legacy wastewater and leachate that are less protective than the Clean Water Act requires. As a result, EPA’s final rule is not sufficiently protective of waterbodies that Environmental Petitioners’ members use and enjoy for their



livelihood and recreational, fishing, and aesthetic purposes. Petitioners have standing to challenge EPA's final rule on behalf of their members, whose health, recreational, and aesthetic interests in waterbodies affected by these discharges have suffered and will continue to suffer as a result of EPA's decision not to impose more stringent limitations on legacy wastewater and leachate discharges.

“[T]o satisfy Article III's standing requirements, a plaintiff must show (1) it has suffered an ‘injury in fact’ that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.” *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc.*, 528 U.S. 167, 180-81 (2000) (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-561 (1992)). Under the doctrine of “associational standing,” an organization has “standing to bring a suit on behalf of its members when: (1) its members would otherwise have standing to sue in their own right; (2) the interests it seeks to protect are germane to the organization's purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individual members.” *Texans United for a Safe Econ. Educ. Fund v. Crown Cent. Petroleum Corp.*, 207 F.3d 789, 792 (5th Cir. 2000) (citing *Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 343 (1977)). The presence of one party with standing is sufficient to satisfy Article III's case-or-

controversy requirement. *Rumsfeld v. Forum for Academic and Inst. Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006); *Janvey v. Democratic Senatorial Campaign Comm., Inc.*, 712 F.3d 185, 193 (5th Cir. 2013).

Members of the Environmental Petitioners’ organizations would have standing to sue in their own right. The declarations submitted with this brief demonstrate that individual members suffer concrete injuries as a result of EPA issuing a rule that does not adequately protect against the harms caused by discharges of toxic coal ash and scrubber wastewater into rivers, lakes, and streams that those members use and enjoy. Second Declaration of Robin Garlish ¶¶ 4-10 (Nov. 30, 2016) (“Garlish Decl.”); Declaration of Michelle Haynes ¶¶ 6-8 (Nov. 30, 2016) (“Haynes Decl.”); Second Declaration of John Hickey ¶¶ 7-11 (Nov. 30, 2016) (“Hickey Decl.”); Second Declaration of LeTourneau ¶¶ 6-11 (Nov. 30, 2016) (“LeTourneau Decl.”); Declaration of Judith C. Hinch ¶¶ 8, 15, 20 (Dec. 5, 2016) (“Hinch Decl.”); Declaration of Paul Rolke Decl. ¶¶ 4-8 (Nov. 30, 2016) (“Rolke Decl.”); Declaration of Jack G. Otwell, Jr. ¶¶ 5-8, 14-17, 19, 21-22, 24 (Dec. 2, 2016) (“Otwell Decl.”).<sup>22</sup> Petitioners’ members depend on waterways that have been polluted by discharges of scrubber and coal ash transport water, and EPA’s inadequate regulation of legacy and leachate wastewater exacerbates those

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<sup>22</sup> Along with this brief, Environmental Petitioners are filing a motion for leave to file declarations for the purpose of meeting the requirement to demonstrate Article III standing.

injuries. Second Declaration of Dalal Aboulhosn ¶¶ 4-5, 10 (Nov. 29, 2016) (“Aboulhosn Decl.”); Second Declaration of Eric Schaeffer, ¶¶ 4, 7, 12-15 (Dec. 2, 2016) (“Schaeffer Decl.”); Declaration of Marc A. Yaggi ¶¶ 8, 14, 19-23 (Nov. 30, 2016) (Nov. 30, 2016) (“Yaggi Decl.”). Environmental Petitioners’ members own property near coal ash and wet scrubber impoundments that discharge leachate and scrubber wastewater. Rolke Decl. ¶¶ 3-4; Haynes Decl. ¶ 6. They also enjoy birding, fishing, boating, camping, waterskiing, innertubing, and swimming in waterways near coal ash impoundments that will discharge leachate and legacy wastewater. Garlish Decl. ¶¶ 4-7; Haynes Decl. ¶ 6; Hickey Decl. ¶ 9; Hinch Decl. ¶ 8; LeTourneau ¶ 6; Otwell Decl. ¶¶ 5-6, 17. One of the declarants raises cattle and uses water downstream of power plant discharges. Rolke Decl. ¶ 3. Other declarants use drinking water supplies that are downstream from power plants that would be allowed to continue to discharge untreated legacy and leachate wastewater under EPA’s insufficiently stringent rule. Haynes Decl., ¶¶ 6-8; Hickey Decl. ¶ 8; Rolke Decl. ¶¶ 4-5; Garlish Decl. ¶¶ 6, 8.

Many of Environmental Petitioners’ members have already reduced their use and enjoyment of waterways impacted by toxic wastewater discharges from coal-fired power plants due to concerns about the health effects of ingesting or contacting toxic pollutants, or consuming fish caught in those waters. *E.g.*, Garlish Decl. ¶¶ 5-6; Haynes Decl. ¶ 8; Hickey Decl. ¶ 11; Hinch Decl. ¶ 15; LeTourneau

Decl. ¶ 11; Otwell Decl. ¶¶ 17, 19; *see Laidlaw*, 528 U.S. at 184 (in CWA case, the Court held that reasonable fear of harm from pollution is an injury in fact); *see also Sierra Club, Lone Star Chapter v. Cedar Point Oil Co.*, 73 F.3d 546, 556 (5th Cir. 1996) (concern about future adverse effects from a facility's pollution also satisfies the injury in fact requirement). In addition, the degree of injury claimed “need not be large, an identifiable trifle will suffice.” *Cedar Point Oil Co.*, 73 F.3d at 556-57 (citation omitted).

Environmental Petitioners' members are threatened with an increased and continuing risk of harm because EPA's final rule allows discharges of toxic coal ash and scrubber leachate from landfills and surface impoundments to continue without complying with legally required pollution limits. *Crown Cent. Petroleum*, 207 F.3d at 792 (“an actual *or threatened* injury” suffices) (emphasis added). Similarly, EPA's final rule threatens to allow harm from inadequately treated legacy wastewater and leachate to waterways that Petitioners' members use and enjoy. *E.g.*, Garlish Decl. ¶¶ 10, 14-15; Haynes Decl. ¶¶ 10-12; Hickey Decl. ¶¶ 14-16; Hinch ¶¶ 19-20; LeTourneau Decl. ¶¶ 10-12; Otwell Decl. ¶¶ 32-34; Rolke Decl. ¶¶ 9, 11. EPA's unlawful failure to reduce the risks from these wastestreams impairs Petitioners' use and enjoyment of public waterways and lands, as well as their own property. *See, e.g.*, Garlish Decl. ¶ 15; Haynes Decl.

¶¶ 8, 11; Hickey Decl. ¶ 16; Hinch Decl. ¶ 15; LeTourneau Decl. ¶ 11; Otwell Decl. ¶¶ 26-28, 34-35; Rolke Decl. ¶ 8.

These injuries to Environmental Petitioners' members' aesthetic, health, property, and recreational interests establish the requisite injury-in-fact to satisfy Article III standing requirements. *See Laidlaw*, 528 U.S. at 183 (“We have held that environmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons ‘for whom the aesthetic and recreational values of the area will be lessened’ by the challenged activity.”) (quoting *Sierra Club v. Morton*, 405 U.S. 727, 735 (1972)); *see also Cedar Point Oil Co.*, 73 F.3d at 557 (“[H]arm to aesthetic, environmental, or recreational interests is sufficient to confer standing, provided that the party seeking review is among the injured.” (citation omitted)).

These injuries are “fairly traceable” to EPA’s failure in the final ELG rule to adequately protect human health and the environment from the discharge of toxic pollutants. *See generally Cedar Point Oil Co.*, 73 F.3d at 557 (holding that an injury is fairly traceable where “the pollutant [that is permitted to be released] causes or contributes to the kinds of injuries alleged by the plaintiffs”). These injuries would be redressed by a favorable decision remanding the BAT limits for legacy wastewater and leachate to EPA for reconsideration. On remand, if EPA adopts more stringent wastewater treatment requirements, then Environmental

Petitioners’ members’ injuries would be redressed. *See, e.g.*, Garlish Decl. ¶ 16; Haynes Decl. ¶ 13; Hickey Decl. ¶ 17; Hinch Decl. ¶ 21; LeTourneau Decl. ¶ 12; Otwell Decl. ¶¶ 35-36; Rolke Decl. ¶ 12. *See generally Franklin v. Massachusetts*, 505 U.S. 788, 801-803 (1992) (holding redressability prong satisfied by request for declaratory relief even though any actual change would require discretionary determination by President); *Bennett v. Spear*, 520 U.S. 154, 170-71 (1997) (plaintiffs satisfied the “relatively modest” redressability requirement where a finding that the agency had acted illegally would require the agency to reevaluate its final decision); *Save Our Comm’y v. EPA*, 971 F.2d 1155, 1161 (5th Cir. 1992) (citizen group satisfied standing where an order enjoining landfill operator’s drainage of ponds would redress injuries by preventing destruction of wetlands); *cf. Gulf Restoration Network, Inc. v. Salazar*, 683 F.3d 158, 167 (5th Cir. 2012) (where environmental petitioners sought an order requiring the reconsideration of drilling leases under NEPA, concluding that plaintiffs “need not show that the procedural remedy that [they are] requesting will in fact redress [their] injur[ies],” although they “must nonetheless show that there is a possibility that the procedural remedy will redress [their] injur [ies]”) (alterations in original; citation omitted).

Environmental Petitioners also have organizational standing because the issues at stake here— issuance of lawful regulations to protect health and the environment from the discharge of toxic pollutants from power plants—are central

to the groups' institutional missions. *See* Aboulhosn Decl. ¶¶ 3-5; Yaggi Decl. ¶¶ 4, 7-8; Schaeffer Decl. ¶¶ 2-4. Environmental Petitioners secured a court order requiring EPA to review and update the regulations at issue here, *Defenders of Wildlife v. EPA*, No. 1:10-cv-01915-RWR (D.D.C. filed Nov. 8, 2010), and Environmental Petitioners submitted numerous and extensive comments on the proposed rule, *see, e.g.*, Index.9039, Index.9040, Index.9215, Index.10052, Index.10073, Index.9989, further demonstrating that the issues at stake in this case are germane to the organizations' missions. Finally, Environmental Petitioners are bringing record-based claims and seek a remand to the agency, and thus the participation of individual members in this case is not necessary. For all of these reasons, Environmental Petitioners have standing to pursue this action.

### **III. THE BAT LIMITS FOR LEGACY WASTEWATER ARE ARBITRARY AND CAPRICIOUS.**

EPA arbitrarily set best available technology, or BAT, limits for so-called legacy wastewater that do not, in fact, represent the best available technology, and are far more lenient than the limits that EPA set in the ELG rule for the same categories of wastewater that are generated at a power plant after the rule's compliance date.<sup>23</sup> For wastes generated after the compliance date, EPA set BAT

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<sup>23</sup> "Compliance date" refers to the date which is as soon as possible after November 1, 2018 and no later than December 31, 2023. 80 Fed. Reg. at 67,854. The compliance date will be set by state permit authorities (or EPA, where EPA is

limits that prohibit the discharge of fly ash and bottom ash wastewater and limit the amount of arsenic, mercury, selenium, and nitrogen in scrubber wastewater. 40 C.F.R. § 423.13(g)(1)(i), (h)(1)(i), (k)(1)(i). Yet for the so-called legacy wastewater that is generated before the compliance date, EPA set separate BAT limits “equal to the previously promulgated BPT limitations.” 80 Fed. Reg. at 67,854. These BPT limits, which were established in 1982, allow the discharge of fly ash and bottom ash wastewaters with no specific limits on toxic metals, and set no specific limits on the discharge of arsenic, mercury, selenium, or nitrogen in scrubber wastewater.

As explained below, EPA’s creation of separate, less stringent limits for wastewater based on the date that it was generated finds no support either in the Clean Water Act or the agency’s own rulemaking record. Indeed, EPA found that surface impoundments are ineffective at removing metals and that more effective technologies are available and affordable. *E.g.*, 80 Fed. Reg. at 67,851; 78 Fed. Reg. at 34,459. Yet in the face of this evidence, EPA locked in those very same ineffective technologies—i.e., surface impoundments—for legacy wastewater as the “best” available technology nationwide.

EPA’s decision on legacy wastewater was ostensibly based on a lack of data about legacy wastewater characteristics, but by setting nationwide BAT limits that

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the permitting authority) as part of each facility’s NPDES permit, and thus each facility will have its own compliance date. *See id.*



do not require effective treatment, EPA arbitrarily rejected requiring local permit authorities to determine BAT on a case-by-case basis during the permitting process, which is the path EPA has followed in similar circumstances in this and other rules. The exemption of legacy wastewater from new, more stringent BAT limits also has significant implications for water quality at a time when, prompted in part by this rule, many power plants are now closing, or preparing to close, their surface impoundments, which store millions of gallons of coal combustion wastewater. *See* 80 Fed. Reg. 21,302, 21,459 (Apr. 17, 2015) (calculating the costs from the predicted closure of active and inactive surface impoundments in response to the Coal Combustion Residuals Rule); 40 C.F.R. § 257.101(a)(1) (requiring an unlined surface impoundment to close or retrofit if assessment monitoring detects concentrations of certain pollutants above the applicable groundwater protection standard), (b)(1) (requiring a surface impoundment to close if it cannot comply with new location standards concerning contact with groundwater, wetlands, earthquake zones, and unstable areas). As those surface impoundments close, power plant operators will be, in many cases, proposing to drain the contaminated water from those impoundments into an adjacent water body (a process commonly known as “dewatering”). *See* 40 C.F.R. § 257.102(d)(2)(i) (requiring that, when a surface impoundment is closed, the liquid wastes be removed or solidified). EPA’s decision to use the 1982 BPT limits as

BAT for legacy wastewater not only fails to require that additional treatment of coal combustion wastewater be utilized during dewatering, it also precludes any additional, plant-specific inquiry during the permit process into whether more effective technologies might be available and affordable at a given power plant. Because of the unlawfully lax legacy wastewater provisions in the steam electric ELG rule, dozens of power plants, all over the country, will be allowed to each dewater millions of gallons of toxic wastewater into rivers, lakes, and streams without legally required pollution based on use of available and affordable wastewater treatment.<sup>24</sup>

**A. The BAT Limits for Legacy Ash Impoundment Wastewater are Inconsistent with the Clean Water Act.**

EPA's decision to create separate BAT limits for ash impoundment wastewater generated before the effective date of the rule (so-called legacy wastewater) is unlawful, as EPA has no authority to base BAT limits based on *when* waste is generated. The Clean Water Act mandates that effluent limitations shall be achieved for "categories and classes of point sources." 33 U.S.C. §

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<sup>24</sup> As noted above, *see supra* note 20, under certain circumstances local permit authorities could impose pollution limits on these discharges to assure compliance with applicable state and federal water quality standards, *see* 33 U.S.C. § 1311(b)(1)(C). For the reasons explained above, however, even when those limits are imposed by permit authorities, they are a legally inadequate substitute for an adequate federal floor of environmental protection for legacy wastewater discharges based on requiring compliance with adequate BAT-based limits. *See supra* at 18-22.

1311(b)(2)(A). The effluent limitations “shall require the elimination of discharges of all pollutants” if EPA finds that “such elimination is technologically and economically achievable for a category or class of point sources.” *Id.* If a zero discharge standard is not achievable, the effluent limitations must require the best available technology economically achievable “for such category or class.” *Id.* Similarly, EPA must identify “the degree of effluent reduction attainable” through the best control measures “for classes and categories of point sources.” *Id.* § 1314(b)(2)(A).<sup>25</sup> In these provisions, the Act contains no distinctions based on when wastewater was produced; the statute does not distinguish between legacy and newly generated wastewater.

The Clean Water Act requires technology-based limits on discharges of pollutants regardless of when those pollutants were generated. Central to the Act’s structure is that it prohibits discharges of any pollutant except when they comply with various provisions of the Act. 33 U.S.C. § 1311(a). One of those exceptions is compliance with NPDES permits, which are required for any discharge of pollutants from a point source. *Id.* § 1342(a).<sup>26</sup> NPDES permits, in turn, must

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<sup>25</sup> The Clean Water Act defines “point source” to mean “any discernible, confined and discrete conveyance, including [*inter alia*] but not limited to any pipe, ditch, [or] channel . . . from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14).

<sup>26</sup> The Clean Water Act broadly defines “discharge of a pollutant” to include “any addition of *any* pollutant to navigable waters from *any* point source.” 33 U.S.C. §

incorporate the effluent limitations in section 1311. *Id.* And section 1311 requires that point source discharges meet effluent limitations that result in further progress toward eliminating discharges, or actually eliminate those discharges, if feasible. *Id.* § 1311(b)(2)(A).

The term “discharge” is used throughout the statutory sections regulating point sources and indicates that the Act’s focus is on reducing through wastewater treatment technology, and ultimately eliminating, the discharge of pollutants to navigable waters. In short, the Clean Water Act requires EPA to set progressively more stringent pollution limits that ultimately eliminate the *discharge* of wastewater—not the *generation* of wastewater. In setting BAT limits based on when wastewater is created, rather than when it is discharged, EPA “relied on factors which Congress has not intended it to consider.” *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43.

**B. The BAT Limits for Legacy Ash Impoundment Wastewater are Unsupported by the Record.**

Moreover, EPA’s justification for creating separate BAT limits for legacy wastewater is inconsistent with evidence in the record. The BAT standard in the Act requires that BAT be “based on the performance of the single best-performing

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1362(12) (emphasis added). The Act further defines “navigable waters” to mean “the waters of the United States.” *Id.* § 1362(7).

plant in an industrial field.” *Chem. Mfrs. Ass’n*, 870 F.2d at 226.<sup>27</sup> Yet EPA ignored the best-performing plants in the field when it determined that the best available technology for all legacy wastewater is the use of surface impoundments, 80 Fed. Reg. 67,854-55, a technology that EPA repeatedly says is ineffective at removing toxic metals, *e.g.*, 80 Fed. Reg. at 67,851 (“pollutants that are present mostly in soluble (dissolved) form, such as selenium, boron, and magnesium, are not effectively and reliably removed by gravity in surface impoundments”); 78 Fed. Reg. at 34,459 (“For metals present in both soluble and particulate forms (such as mercury), surface impoundments will not effectively remove the dissolved fraction.”).

Before setting BAT limits for legacy ash impoundment wastewater, EPA could have collected data from the plants that it knew were using chemical precipitation, a more effective technology than surface impoundments, to treat commingled impoundment wastewater, but the Agency did not do so. EPA acknowledged that there are “fewer than ten plants that use chemical precipitation to treat [impoundment] wastewater that contains, among other things, ash transport

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<sup>27</sup> Indeed, a particular treatment technology or process need not even be “in use at all” in an industry to be considered “available” as BAT, if EPA determines that the technology or process is transferable to the industry. *Am. Petroleum Inst.*, 858 F.2d at 265. In determining BAT, EPA may also deem a technology “available” as BAT even if it is used at only one facility in the industry class, *Ass’n of Pac. Fisheries v. EPA*, 615 F.2d 794, 816 (9th Cir. 1980), and even if that technology is only at the pilot stage, *FMC Corp. v. Train*, 539 F.2d 973, 983-84 (4th Cir. 1976).

water.” 80 Fed. Reg. at 67,855 n.29. EPA concedes that “chemical precipitation and biological treatment are more effective than surface impoundments at removing both soluble and particulate forms of metals, as well as other pollutants.” 80 Fed. Reg. at 67,851.<sup>28</sup> There is evidence that even more effective technologies, such as the combination of chemical and biological treatment, could treat legacy wastewater as well. Jenkins Leachate Report, Index.9818 at 2-6; Jenkins FGD Report, Index.9363 at 21-22. Thus, EPA’s BAT limits for legacy ash impoundment wastewater are arbitrary and capricious because they are not “based on the performance of the single best-performing plant in an industrial field,” as the BAT standard requires. *Chem. Mfrs. Ass’n*, 870 F.2d at 226.<sup>29</sup>

While acknowledging the existence of these more effective technologies, EPA claimed it lacked the data to set BAT limits based on the use of chemical

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<sup>28</sup> “The pollutants of concern in leachate are the same pollutants that are present in, and in many cases are also pollutants of concern for, FGD wastewater, fly ash transport water, bottom ash transport water, and other combustion residuals.” Proposed TDD, Index.2920 at 8-13. “Given the similarities present among the different types of wastewaters associated with combustion residuals,” it is unsurprising that EPA concluded that chemical precipitation is an available technology for treating several coal combustion wastestreams, such as scrubber wastewater, fly ash and bottom ash transport water, and leachate. *Id.*

<sup>29</sup> Indeed, a particular treatment technology or process need not even be “in use at all” in an industry to be considered “available” as BAT, if EPA determines that the technology or process is transferable to the industry. *Am. Petroleum Inst. v. EPA*, 858 F.2d at 265. In identifying BAT, EPA may also deem a technology “available” as BAT even if it is used at only one facility in the industry class, *Ass’n of Pac. Fisheries*, 615 F.2d at 816, and even if that technology is only at the pilot stage, *FMC Corp.*, 539 F.2d at 983-84.

treatment for what EPA calls commingled legacy wastewater—wastestreams such as fly ash and bottom ash transport water that have been mixed together in ash impoundments, rather than stored separately. 80 Fed. Reg. at 67,855. EPA’s rationale has no merit. To begin with, even if it were true that EPA lacked sufficient evidence to identify the best available technology for legacy ash transport water, EPA had sufficient evidence to determine that impoundments are *not* the best available technology. *See, e.g.*, 80 Fed. Reg. at 67,851 (“pollutants that are present mostly in soluble (dissolved) form, such as selenium, boron, and magnesium, are not effectively and reliably removed by gravity in surface impoundments”); 78 Fed. Reg. at 34,459 (“For metals present in both soluble and particulate forms (such as mercury), surface impoundments will not effectively remove the dissolved fraction.”).

Even if it were true that EPA was unable to develop limits for legacy impoundment wastewater based on the use of more effective technologies, the Agency was not required to set BAT limits based on surface impoundments, a technology that EPA had found to be ineffective. Instead, EPA could have declined to issue nationwide effluent limitations guidelines for BAT for commingled legacy impoundment wastewater. In the absence of nationwide effluent guidelines, BAT determinations are made by each facility’s permitting authority during the NPDES permitting process, on a site-specific basis using best

professional judgment (“BPJ”). *See* 40 C.F.R. § 125.3(a), (c)(2) (EPA regulation establishing that, “to the extent that EPA-promulgated effluent limitations are inapplicable,” technology-based treatment requirements “must be imposed” on a case-by-case basis); *see also* 33 U.S.C. § 1311(b)(2)(A) (point sources “shall” achieve “effluent limitations” which “shall require application of [BAT]” pursuant to EPA regulations); *Riverkeeper, Inc. v. EPA*, 358 F.3d 174, 203 (2d Cir. 2004) (“The Clean Water Act does not forbid the EPA from addressing certain environmental problems on a case-by-case basis where categorical regulation is not technologically feasible.”).<sup>30</sup>

When EPA has lacked the data regarding flows and concentrations needed to develop limits for a wastestream, EPA has sometimes deferred setting BAT for that wastestream—both in this rule, and in prior ELG rules. *See, e.g., Nat’l Wildlife Fed’n v. EPA*, 286 F.3d 554, 566-67 (D.C. Cir. 2002) (upholding EPA’s decision “that color pollution should be ‘dealt with on a case-by-case basis through individual [National Pollutant Discharge Elimination System] permits or, when appropriate, through local limits,’” rather than through nationwide BAT limits).

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<sup>30</sup> In 2015, EPA released an updated version of its longstanding guidance document, the *NPDES Permit Writers Manual*, that (among many other things) sets forth in detail the procedures that permitting agencies should follow in deriving case-by-case technology-based effluent limitations where EPA has not established limits through an ELG rulemaking. *See* EPA, *NPDES Permit Writers Manual*, § 5.2.3 (2015), available at [https://www.epa.gov/sites/production/files/2015-09/documents/pwm\\_chapt\\_05.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/pwm_chapt_05.pdf).



Similarly, in the 1982 steam electric ELG Rule, EPA “reserve[d] . . . limitations to be developed in the future” for scrubber wastewater precisely because “[t]he Agency does not have sufficient data on this stream at this time to propose revised BAT, NSPS, and pretreatment standards.” 45 Fed. Reg. 68,328, 68,333 (Oct. 14, 1980). In this rule, EPA deferred setting BAT and other limits for metal cleaning wastes, after the Agency determined that it lacked the necessary data. 80 Fed. Reg. at 67,863 (“EPA decided that it does not have enough information on a national basis to establish BAT/NSPS/PSES/PSNS requirements for non-chemical metal cleaning wastes. The final rule, therefore, continues to ‘reserve’ [those requirements], as the previously promulgated regulations did.”). Here, EPA arbitrarily failed to consider deferring BAT limits for legacy ash transport water, which would require permit authorities to determine BAT on a case-by-case basis, as EPA has done for other wastestreams.

As the Second Circuit Court of Appeals recently recognized, EPA cannot hide behind its own failure to collect data as a justification for setting inadequate BAT limits. In *Natural Resources Defense Council v. EPA*, 808 F.3d 556 (2d Cir. 2015), the Second Circuit held that the BAT limits for ballast water in EPA’s Clean Water Act Vessel General Permit were unlawful because EPA had failed to adequately consider onshore treatment systems as an alternative to shipboard treatment systems. *Natural Res. Def. Council*, 808 F.3d at 572-76. EPA had

concluded that onshore treatment systems were not available because no such systems were then in use to treat ballast water and EPA did not have information on such systems. The Second Circuit found that the lack of information “is a problem of EPA’s own making because EPA went to great lengths to foreclose discussion of onshore treatment” in a Science Advisory Board study of ballast water treatment. *Id.* at 573. By instructing the Science Advisory Board not to collect data, “EPA turned a blind eye to significant information about onshore treatment” that could have formed the basis of more stringent BAT limits on ballast water in the Vessel General Permit. *Id.* at 573-74. The court remanded the matter to EPA “to give full consideration” to onshore treatment systems, *id.* at 576, noting that “[t]here is no impediment to engaging in further study [of onshore treatment systems], and further study may advance the goals of the CWA,” *id.* at 575.

Just as in *Natural Resources Defense Council v. EPA*, the lack of data on treating legacy ash impoundment wastewater “is a problem of EPA’s own making,” *id.* at 573. EPA did not claim that there are any technical barriers to gathering data on treatment of legacy ash impoundment wastewater. Instead, EPA deliberately chose not to gather data on treatment systems, such as chemical precipitation, that EPA knew were more effective than impoundments at treating this wastestream. *See* 80 Fed. Reg. at 67,851.

EPA's decision not to gather such data is all the more egregious given that EPA had not updated the relevant ELGs since 1982, despite EPA's statutory obligation to review and, if appropriate, revise, its effluent limits every five years, 33 U.S.C. § 1311(d), and the ELGs every year, *id.* § 1314(b). EPA began this rulemaking at least as early as 2005, when it started gathering data on the steam electric industry through site visits, questionnaires to selected plants, and other means. Final TDD, Index.12840 at 3-1. EPA then published a Detailed Study Report on the steam electric industry in 2009, which formed the basis of an even more detailed questionnaire which EPA sent in 2010 to every power plant in the country which could potentially discharge wastewater. *Id.* at 3-1 to 3-2. As a result of the information EPA received, the agency knew which power plants were treating commingled wastes. Prior to issuing the proposed rule in 2013, EPA had many years during which it could have sent follow-up requests to plants which commingled their coal combustion wastewaters in order to gather the data necessary to set BAT limits based on technologies more effective than impoundments. EPA simply declined to do so.

EPA's decision to set BAT limits for legacy wastewater that allow for continued discharges from surface impoundments – despite finding that surface impoundments are not effective at removing metals from the discharge – has major consequences for the closure of coal ash impoundments throughout the country.

As result of this and other rules, power plants across the country are preparing to empty surface impoundments that contain millions of gallons of toxic wastewater. *See* 80 Fed. Reg. at 21,459 (calculating the costs from the predicted closure of active and inactive surface impoundments in response to the Coal Combustion Residuals Rule). EPA’s decision to set nationwide BAT limits for legacy wastes forecloses permit authorities from setting BAT on a case-by-case basis, while setting nationwide BAT limits which require no additional pollution controls. This is inconsistent with Congress’s command to set progressively more stringent effluent limits, so as to eliminate water pollution.<sup>31</sup> *See* 33 U.S.C. § 1251(a)(1).

For all of these reasons, EPA’s determination that BAT for commingled legacy wastewater is the use of surface impoundments is arbitrary and capricious, an abuse of discretion, and otherwise unlawful. *See Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43 (where agency “offered an explanation for its decision that runs counter to the evidence before the agency,” the decision is arbitrary and capricious). In particular, EPA’s decision to set BAT limits equal to the 1982 BPT limits was arbitrary and capricious, when EPA could have instead left open the issue of BAT limits for legacy impoundment wastewater, to be determined by local

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<sup>31</sup> *See, e.g., Natural Res. Def. Council, Inc. v. EPA*, 822 F.2d 104, 123 (D.C. Cir. 1987) (“[T]he most salient characteristic of this [CWA] statutory scheme, articulated time and again by its architects and embedded in the statutory language, is that it is technology-forcing.”); *Kennecott*, 780 F.2d at 448 (Congress intended BAT to “push[] industries toward the goal of zero discharge as quickly as possible.”).

permit authorities on a case-by-case basis – an option that EPA failed to consider. *See id.* (agency action is arbitrary and capricious if the agency “entirely failed to consider an important aspect of the problem”). As a result, the Court should vacate and remand the BAT limits for legacy ash impoundment wastewater in 40 C.F.R. § 423.13(g)(1)(ii), (h)(1)(ii), and (k)(1)(ii).

**C. The BAT Limits for Legacy Scrubber Wastewater Are Inconsistent with Record Evidence that Chemical Precipitation, or Chemical Precipitation Plus Biological Treatment, is BAT.**

As explained above, EPA’s justification for creating separate BAT limits for legacy wastewater centered on its alleged lack of data for different legacy wastestreams that are mixed together (*e.g.*, bottom ash wastewater mixed with scrubber wastewater). But EPA acknowledged that some plants store legacy wastewater separately, particularly scrubber wastewater, rather than sending it to an impoundment where it mixes with other wastestreams. 80 Fed. Reg. at 67,855. EPA had no rational basis for creating separate, more lenient BAT limits for legacy scrubber wastewater where that wastewater is not mixed with any other wastewater.

For scrubber wastewater generated after the compliance date, the final rule sets best available technology, or BAT, limits on the discharge of arsenic, mercury, selenium, and nitrate/nitrite. 40 C.F.R. § 423.13(g)(1)(i). These BAT limits are based on the use of “chemical precipitation followed by biological treatment.” 80

Fed. Reg. at 67,850. Yet for “legacy” scrubber wastewater, the final rule sets no specific limits on toxic metals, instead setting the BAT limit for such wastewater equal to the 1982 BPT limit that was based on use of surface impoundments. 40 C.F.R. § 423.13(g)(1)(ii). This limit applies even to power plants that store their scrubber wastewater in a separate impoundment, without commingling it with other wastestreams, as EPA found to be the case at “a few plants.” 80 Fed. Reg. at 67,855.

EPA provided no technical reason in the record why power plants that store legacy scrubber wastewater in a separate impoundment could not use the same technologies to treat that wastewater, including chemical and biological treatment, that it found to be available for scrubber wastewater generated after the rule goes into effect. On the contrary, EPA conceded that it “could be possible for plants to treat the legacy scrubber wastewater with the same technology used to treat scrubber wastewater subject to the BAT limitations . . .” 80 Fed. Reg. at 67,855.

Similarly, the evidence that chemical precipitation plus biological treatment is economically achievable for scrubber wastewater generated after November 2018 provides support for finding that it is economically achievable to use the same treatment technology for legacy scrubber wastewater. EPA found that it would be economically achievable for the industry as a whole to use chemical and biological treatment for non-legacy scrubber wastewater. *See, e.g.*, 80 Fed. Reg. at

67,855, 67,863-68. The record contains no reason why plants that can afford to treat newly generated scrubber wastewater cannot treat legacy scrubber wastewater as well, as the same treatment system would be used for both. Indeed, EPA did not contend in the preamble to the final rule or in the response to comments that it would be too costly to treat legacy scrubber wastes.

Rather, EPA claimed that if it set limits for legacy scrubber wastewater that is stored separately, plants would respond by mixing scrubber wastewater with other wastewater, or by dumping their legacy scrubber wastewater prior to the ELG rule's compliance date. 80 Fed. Reg. at 67,855. But under the current rule, legacy scrubber wastewater can be mixed with other wastewater. Even if it is not mixed, legacy scrubber wastewater can be discharged under the final rule. As a result, imposing more stringent limits would not increase the amount of legacy scrubber wastewater discharged. Even if some plants were able to avoid the new limits, others might not, and the net effect (if any) would be a reduction in pollution. It was irrational for EPA to reject available, affordable pollution controls based on a concern that plants will mix or discharge their legacy scrubber wastewater, when that is precisely what the final rule allows plants to do.<sup>32</sup>

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<sup>32</sup> EPA's concern about plants commingling their wastewater would be significantly lessened if EPA had set adequate BAT limits on commingled legacy wastewater, because EPA could then be certain that commingled wastes would be treated before being discharged. *See supra* at 39-50. Moreover, while EPA fears plants would respond by discharging wastewater before limits went into effect,

In short, unlike the situation for commingled legacy impoundment wastewater, EPA did not justify separate, less stringent BAT limits for legacy scrubber wastewater on the ground that EPA lacks the necessary data. That is unsurprising, since EPA used extensive data on scrubber wastewater to set BAT limits for non-legacy scrubber wastes that are technologically and economically achievable, and there is no difference between legacy and non-legacy scrubber wastewater other than the date of its creation. Instead, EPA makes the illogical claim that requiring legacy scrubber wastewater to be treated in the same manner as non-legacy scrubber wastewater would encourage plants to do the very things EPA expressly allows plants to do under the rule now—mix their legacy wastewater and/or discharge it. It was arbitrary and capricious for EPA to reject the pollution reductions from setting BAT based on more effective treatment technologies for legacy scrubber wastewater for fear of alleged harms that would be no worse than what the rule already allows. *See Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43 (agency decision is arbitrary and capricious where the agency “offered

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EPA ignores that such plants would likely, at a minimum, need to seek a modification of their NPDES permits before doing so. *See* 40 C.F.R. §§ 122.41(l)(1)(ii) (requiring permitted facilities to report any alteration in operations that “could significantly change the nature or increase the quantity of pollutants discharged”), 122.62(a)(1) (requiring permit authorities to modify permits if “[t]here are material and substantial alterations or additions to the permitted facility or activity (including a change or changes in the permittee’s sludge use or disposal practice) . . . which justify the application of permit conditions that are different or absent in the existing permit”).



an explanation for its decision that . . . is so implausible that it could not be ascribed to a difference in view or the product of agency expertise”).

**IV. THE BAT LIMITS FOR LEACHATE REST ON AN UNLAWFUL INTERPRETATION OF THE CLEAN WATER ACT AND ARE UNSUPPORTED BY THE RECORD.**

EPA’s decision to set BAT limits for leachate equal to the 1982 BPT limits, which contain no specific limits on the discharge of toxic metals, rests on an unlawful interpretation of the Clean Water Act and is unsupported by the record. EPA rejected available and affordable technologies for reducing pollution in leachate because the amount of pollutant loadings from the leachate wastestream are smaller than those in other wastestreams for which EPA required more stringent pollution controls. 80 Fed. Reg. at 67,854. EPA concluded that its BAT determinations for scrubber wastewater and ash transport water “already represent[] reasonable further progress” for the industry as a whole, thus allowing it to set lax BAT limits for the relatively less toxic leachate wastestream. *Id.* However, the text and structure of the Clean Water Act indicate that Congress did not authorize EPA to reject available and affordable technologies based on EPA’s subjective judgment as to when a wastestream is large enough to merit more stringent BAT limits. EPA’s assertions about the size of the leachate wastestream are unmoored from any statutory or regulatory framework, and fail to put the size of the leachate wastestream into any meaningful context. If leachate from power

plants were considered its own industry, it would be the 18th largest industrial source of water pollution in the country.<sup>33</sup>

Thus, as explained more fully below, EPA's decision to set less stringent BAT limits for leachate because of the size and amount of pollutants in the wastestream relative to other power plant wastestreams was based on considerations that are impermissible under the Clean Water Act. Moreover, even if these were permissible considerations, the BAT limits for leachate are arbitrary and capricious because EPA's contention that leachate contains is of an insufficient size to warrant more stringent BAT limits conflicts with evidence that leachate is one of the largest toxic wastestreams in the country.

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<sup>33</sup> EPA estimates that the "industry-level combustion residual leachate loadings" total 70,300 toxic-weighted pound equivalents (TWPE) per year. Final TDD, Index.12840 at 10-39. This is comparable to many entire industries in EPA's latest ranking of point source discharges. See EPA, 2015 Annual Effluent Guidelines Review Report, EPA-821-R-16-002, at 2-26, Table 2-9 (June 2016), available at [https://www.epa.gov/sites/production/files/2016-06/documents/2015-annual-eg-review-report\\_june-2016.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/2015-annual-eg-review-report_june-2016.pdf). For example, loadings from coal ash leachate are comparable to those from textile mills (91,700 TWPE) and meat and poultry products (89,700 TWPE) and exceed those of coal mining (40,600 TWPE), sugar processing (32,900 TWPE), and pesticide chemicals (22,700 TWPE). *Id.* If coal ash leachate were its own industry, it would be ranked 18th among industries for pollutant loadings, and would therefore be included in EPA's priority list of "those categories whose pollutant discharges potentially pose the greatest hazards for human health or the environment because of their toxicity." *Id.* at 3-1.

**A. EPA Arbitrarily Rejected Technologies for Treating Leachate that Satisfy the Basic Requirement that BAT be Technologically and Economically Achievable.**

This Court has held that “the basic requirement for BAT effluent limitations is only that they be technologically and economically achievable.” *Am. Petroleum Inst.*, 858 F.2d at 265-66, amended by 864 F.2d 1156, 1156- 57 (5th Cir. 1989). Here, EPA conceded that technologies more effective at removing pollution from leachate, such as chemical precipitation, are technologically achievable. Response to Comments, Volume 7, Index.10082 at 7-20 (“EPA has determined that chemical precipitation is an available and demonstrated technology for the treatment of combustion residual leachate.”), 7-24 (“EPA agrees with the commenter’s assertion that chemical precipitation is technologically available.”). Indeed, the ELG Rule requires new power plants to use chemical precipitation to treat leachate. 80 Fed. Reg. at 67,859 (for new sources, EPA set limits “on mercury and arsenic in discharges of combustion residual leachate, based on chemical precipitation”), codified at 40 C.F.R § 423.15(b)(16).

The record also indicates that using chemical precipitation to treat leachate would be economically achievable for the industry as a whole. The annualized cost of treating leachate with chemical precipitation would be \$57.7 million, which is very small in the context of the national power plant sector. Final Regulatory

Impact Analysis (“RIA”), Index.12842 at 3-7.<sup>34</sup> Setting BAT limits for leachate based on the use of chemical precipitation would result in only two additional entities incurring costs between 1 and 3% of revenues, while the cost to revenue ratio for the other 241 entities would be unchanged. *Id.* at 4-11.<sup>35</sup>

**B. EPA’s Rejection of Available and Affordable Technologies Rests on an Unlawful Interpretation of the Clean Water Act.**

The BAT limits for leachate are based on an unlawful interpretation of the Clean Water Act. EPA suggested that BAT need only represent reasonable further progress in eliminating wastewater discharges for an industry as a whole—rather than represent reasonable further progress for each wastestream. 80 Fed. Reg. at 67,854. According to EPA, the rule’s limits for fly ash, bottom ash, and scrubber wastestreams will make reasonable further progress toward eliminating discharges from the steam electric power industry, and therefore the statute does not require EPA to set more stringent limits on discharges of leachate. *See id.* Relying on this interpretation, EPA set “BAT limitations for combustion residual leachate equal to the BPT limitation on [total suspended solids] TSS,” 80 Fed. Reg. at 67,854, which was established in 1982 and does not effectively control for dissolved forms of

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<sup>34</sup> In the final rule, EPA selected Option D. The only difference between Options D and E is that Option E adds chemical precipitation as BAT for leachate. Thus, the cost difference between Options D and E represents the incremental cost to use chemical precipitation to treat leachate.

<sup>35</sup> These numbers represent the difference between the results for Option D and Option E in Table 4-2. Final RIA, Index.12842 at 4-11.

toxic metals, *see* 40 C.F.R. § 423.13(l). EPA set the 1982 BPT limit based on what can be achieved by using surface impoundments, which EPA has repeatedly found to be ineffective at removing toxic metals. *E.g.*, 80 Fed. Reg. at 67,851; 78 Fed. Reg. at 34,459.

EPA's novel interpretation of the Clean Water Act conflicts with the clear intent of Congress, and thus fails under *Chevron* step one.<sup>36</sup> BAT represents the best available technology that is economically achievable, 33 U.S.C. § 1311(b)(2)(A), a stringent treatment standard that has been held to represent "a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges," *Nat'l Crushed Stone Ass'n*, 449 U.S. at 74. BAT requires the elimination of discharges of "all pollutants" if "such elimination is technologically and economically achievable." 33 U.S.C. § 1311(b)(2)(A) (emphasis added). "The most salient characteristic of this [CWA] statutory scheme, articulated time and again by its architects and embedded in the statutory language, is that it is technology-forcing," meaning that BAT standards should drive the development and adoption of increasingly more effective pollution controls. *Natural Res. Def. Council v. EPA*, 822 F.2d at 123. Congress intended

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<sup>36</sup> Environmental Petitioners are unaware of any judicial or administrative precedent that specifically supports EPA's position that BAT need only represent reasonable further progress in eliminating discharges for an industry as a whole, rather than representing reasonable further progress for each wastestream that an industry discharges.

that in order to eventually eliminate all water pollution, BAT standards would be more stringent than BPT standards, as BPT represents the initial limits and BAT represents the second phase of technology-based effluent limits. Congress intended BAT to “push[] industries toward the goal of zero discharge as quickly as possible.” *Kennecott*, 780 F.2d at 448.

“[T]he basic requirement for BAT effluent limitations is only that they be technologically and economically achievable.” *Am. Petroleum Inst.*, 858 F.2d at 265-66. A technology is achievable if it is in use in the industry, even if only by the best-performing plant in the industry, or if it can be demonstrated to be available through pilot studies or its use in other industries. *Id.* at 265; *Kennecott*, 780 F.2d at 453. “Congress intended these [BAT] limitations to be based on the performance of the single best-performing plant in an industrial field.” *Chem. Mfrs. Ass’n*, 870 F.2d at 226. A technology is economically achievable if the costs can be reasonably borne by the industry as a whole. *Waterkeeper Alliance*, 399 F.3d at 516; *Rybachek*, 904 F.2d at 1290-91 (discussing this standard). Whereas the BPT provision in the Clean Water Act requires EPA to balance costs against benefits, 33 U.S.C. § 1314(b)(1)(B), the BAT provision omits this requirement, U.S.C. § 1314(b)(2)(B), because Congress affirmatively rejected amendments that would have required cost-benefit balancing for BAT. *Weyerhaeuser*, 590 F.2d at 1046. As this Court has held, “BAT is the CWA’s most stringent standard” and

must be set based not on cost-benefit analysis but on “the performance of the single, best-performing plant in an industrial field.” *Tex. Oil & Gas Ass’n*, 161 F.3d at 928.

Under the Clean Water Act, “effluent limitations” must be “determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(2) of this title.” 33 U.S.C. § 1311(b)(2)(A). Section 1314(b)(2), in turn, lists six factors that EPA must consider, none of which support EPA’s position here. In addition, the section includes a catch-all phrase that allows EPA to consider “such other factors as the Administrator deems appropriate.” *Id.* § 1314(b)(2)(B). This catch-all provision, however, does not save EPA’s decision, which is contrary to Congress’ stated intent that BAT eliminate discharges of “all pollutants” where feasible, based on application of available, affordable treatment technologies and without first requiring an evaluation of water quality impacts. *See Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2446 (2014) (“[A]n agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate.”); *Schattman*, 459 F.2d at 38 (“[I]n construing an Act of Congress Courts must construe what Congress has written and cannot add, subtract, delete, or distort the words Congress chose to use.”). Pre-1972 versions of the Clean Water Act attempted to control water pollution by determining “which polluter caused what pollution,” a mandate that “proved over the years to be an impractical task.” *Am.*

*Frozen Food Inst.*, 539 F.2d at 116; *see also Weyerhaeuser*, 590 F.2d at 1056 (“Congress realized not only that its water pollution efforts until then had failed, but also that reliance on receiving water capacity as a crucial test for permissible pollution levels had contributed greatly to that failure.”) (citations omitted). The 1972 Clean Water Act took a “wholly new approach,” by replacing a water quality-based framework that allocated responsibility for pollution that had already occurred with a framework that prohibits *any* discharge of pollutants without a permit that requires application of technology-based effluent limitations. *Am. Frozen Food Inst.*, 539 F.2d at 115-16 (citing 33 U.S.C. § 1311(a)).<sup>37</sup> Technology-based effluent limitations are the centerpiece of the Act and require facilities to meet a series of increasingly stringent, “technology-forcing” requirements that apply to all discharges of pollutants subject to the Act. *See, e.g., Natural Res. Def. Council*, 822 F.2d at 123 (stating that “the most salient characteristic of this [CWA] statutory scheme, articulated time and again by its architects and embedded in the statutory language, is that it is technology-forcing”).

EPA’s interpretation of the statute here—that the Agency can reject a technology as BAT that is available and economically achievable solely because the wastestream has a “small” amount of pollutants relative to other

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<sup>37</sup> *See also supra* at 40-41 (noting that central to the Clean Water Act’s structure is that the Act provides that *any* discharge of pollutants is unlawful unless it complies with applicable technology-based effluent limitations).



wastestreams—is exactly the kind of water quality-based determination that Congress intended the BAT provisions of the Clean Water Act to supersede.<sup>38</sup> The statute does not authorize EPA to set BAT limits based on whether EPA thinks the pollution is voluminous enough to merit regulation. Whereas the statute requires EPA to consider the costs of BPT relative to its “effluent reduction benefits,” there is no comparable requirement for the BAT limits. *Compare* 33 U.S.C. § 1314(b)(1)(B), *with id.* § 1314(b)(2)(B). Instead, Congress directed EPA to work toward eliminating all water pollution by promulgating effluent limitations requiring application of the technologies available for treating water pollution. EPA’s interpretation conflicts with the intent of Congress “[b]ecause the basic requirement for BAT effluent limitations is only that they be technologically and economically achievable, the impact of a particular discharge upon the receiving water is not an issue to be considered in setting technology-based limitations.” *Am. Petroleum Inst.*, 858 F.2d at 265-66; *see also Tex. Oil & Gas Ass’n*, 161 F.3d

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<sup>38</sup> Although, as noted above (*see supra* notes 20 and 24), the Clean Water Act requires that all point sources meet effluent limitations that assure compliance with any applicable state and federal water quality standards, *see* 33 U.S.C. § 1311(b)(1)(C), the Supreme Court has made clear that such water quality-based effluent limitations are “supplementary” to the federal floor of technology-based effluent limitations. *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 & n.12 (1976). Under EPA regulations, more stringent water quality-based effluent limitations are required for a pollutant discharge if, after all technology-based effluent limitations are complied with, the discharge “will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” 40 C.F.R. § 122.44(a)(1).

at 927 (“These limitations are technology-based rather than harm-based; that is, they reflect the capabilities of available pollution control technologies to prevent or limit different discharges rather than the impact that those discharges have on the waters.”).

If the Court were to accept EPA’s interpretation of the statute, this Court would set a precedent that EPA can reject more effective technologies as BAT whenever EPA deems a wastestream to be too “small.” This would be directly contrary to the statutory mandate to eventually eliminate *all* discharges of pollution to the nation’s waters, 33 U.S.C. § 1251(a)(1), and courts “cannot interpret federal statutes to negate their own stated purposes.” *N.Y. State Dep’t of Social Servs. v. Dublino*, 413 U.S. 405, 419–420 (1973).

This case vividly demonstrates the dangers of allowing EPA to set BAT limits based on the agency’s determination, untethered from any statutory or regulatory framework, of when a wastestream is too “small.” Here, EPA rejected available technologies for treating leachate because leachate is responsible for only three percent of the total pollutants discharged by the steam electric industry. 80 Fed. Reg. at 67,854. But EPA failed to put this into a meaningful context, by neglecting to mention that the steam electric industry is the single largest industrial wastestream in the country. *See* Final EA at 3-15, Table 3-3. Although only the fourth-largest wastestream discharged from steam electric power plants, leachate

from the steam electric power sector would be the 18th largest wastestream in the country, if treated separately.<sup>39</sup> Rejecting available control technologies for the 18th largest wastestream in the entire country, based solely on an indefensible claim that the wastestream is too “small,” is inconsistent with Congress’s intent to eliminate all water pollution, 33 U.S.C. § 1251(a)(1), violates the requirement that BAT limits be set for discharges of all pollutants, *id.* § 1311(b)(2)(A), and is arbitrary and capricious.

Finally, even if the Court were to find that the statute is ambiguous, and proceed to *Chevron* step two, EPA’s interpretation is unreasonable. EPA interprets the Act as allowing the agency to reject technologically and economically achievable controls as BAT for a wastestream because other wastestreams for an industry are being regulated. This interpretation is unreasonable because it cannot be squared with Congress’s intent for BAT limits to be more stringent than BPT limits and for BAT to “push[] industries toward the goal of zero discharge as quickly as possible.” *Kennecott*, 780 F.2d at 448. EPA’s interpretation conflicts with the Supreme Court’s pronouncement that BAT represents “a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges,” because EPA’s interpretation authorizes the agency to reject economically achievable standards solely because of the size of the

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<sup>39</sup> *See supra* note 33.

wastestream in question relative to other wastestreams. *Nat'l Crushed Stone Ass'n*, 449 U.S. at 74. Moreover, EPA's interpretation is unreasonable because it allows the agency to reject available and affordable controls based on the pollutant loadings of the wastestream, which this Court has held cannot be considered in setting BAT. *See Am. Petroleum Inst.*, 858 F.2d at 265-66 (“[T]he impact of a particular discharge upon the receiving water is not an issue to be considered in setting technology-based limitations.”). For these reasons, even under *Chevron* step two, EPA's interpretation of the Clean Water Act is unreasonable. *Cf. AT & T Corp. v. Iowa Utilities Bd.*, 525 U.S. 366, 392 (1999) (“Because the Commission has not interpreted the terms of the statute in a reasonable fashion, we must vacate 47 C.F.R. § 51.319 (1997).”); *Si Min Cen v. Attorney Gen.*, 825 F.3d 177, 197 (3d Cir. 2016) (reversing an agency action under “Chevron Step Two” because “[w]here Congress has made clear through the statutory language, structure, history, and purpose its intent to authorize a certain class of aliens to apply for adjustment of status, a regulation that strips such aliens of eligibility altogether cannot be deemed ‘reasonable in light of the legislature’s revealed design.’”).

In sum, the best available technology, or BAT, limits for leachate are based on an interpretation of the Clean Water Act that conflicts with Congress's intent, is not a permissible construction of the statute, and is arbitrary and capricious. This

Court should therefore vacate and remand the BAT limits for leachate contained in 40 C.F.R. § 423.13(l).

### CONCLUSION

For the foregoing reasons, the Court should vacate and remand the following provisions of the final ELG rule:

- The BAT limits for legacy wastewater codified at 40 C.F.R. § 423.13(g)(1)(ii), (h)(1)(ii), and (k)(1)(ii); and
- The BAT limits for leachate codified at 40 C.F.R. § 423.13(l).

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### **CERTIFICATE OF SERVICE**

I hereby certify that on December 5, 2016, the foregoing brief was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record who have consented to electronic service, and served by U.S. Priority Mail to any other attorney of record.

*s/Thomas Joseph Cmar*  
\_\_\_\_\_  
Thomas Joseph Cmar

**CERTIFICATIONS UNDER ECF FILING STANDARDS AND  
CERTIFICATE OF COMPLIANCE WITH WORD LIMIT**

Pursuant to paragraph A(6) of this Court's ECF Filing Standards, I hereby certify that (1) required privacy redactions have been made, 5th Cir. R. 25.2.13; (2) the electronic submission is an exact copy of the paper document, 5th Cir. R.25.2.1; and (3) the document has been scanned for viruses with the most recent version of a commercial virus scanning program and is free of viruses.

I certify that this brief complies with the Court's Order of September 28, 2016, which limits the parties' opening briefs to 18,000 words. This brief contains 15,578 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

Dated: December 5, 2016

*s/Thomas Joseph Cmar*  
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