

ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

No. 16-1406 (and consolidated cases)

STATE OF WISCONSIN, *et al.*,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and E.
SCOTT PRUITT, Administrator, United States Environmental Protection Agency,
Respondents.

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

**FINAL BRIEF OF PUBLIC HEALTH AND ENVIRONMENTAL
RESPONDENT-INTERVENORS**

Charles McPhedran
Earthjustice
1617 JFK Boulevard, Suite 1130
Philadelphia, PA 19103
(215) 717-4521
cmcphebran@earthjustice.org

Counsel for Intervenor Sierra Club

Sean H. Donahue
Susannah L. Weaver
Donahue & Goldberg, LLP
1111 14th St. NW, Suite 510A
Washington, DC 20005
(202) 277-7085
sean@donahuegoldberg.com
susannah@donahuegoldberg.com

*Counsel for Intervenor
Environmental Defense Fund*

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(Additional counsel listed within)

Neil Gormley
David Baron
Howard Fox
Earthjustice
1625 Massachusetts Ave., NW, Suite 702
Washington, DC 20036
(202) 667-4500
ngormley@earthjustice.org
dbaron@earthjustice.org
hfox@earthjustice.org

Joshua R. Stebbins
Zachary M. Fabish
Sierra Club
50 F Street NW, 8th Floor
Washington, DC 20001
(202) 675-7917
josh.stebbins@sierraclub.org
zachary.fabish@sierraclub.org

Counsel for Intervenor Sierra Club

Graham G. McCahan
Vickie L. Patton
Environmental Defense Fund
2060 Broadway, Suite 300
Boulder, CO 80302
(303) 447-7228
gmccahan@edf.org
vpatton@edf.org

*Counsel for Intervenor
Environmental Defense Fund*

Ann Brewster Weeks
Clean Air Task Force
18 Tremont St., Suite 530
Boston, MA 02108
(617) 624-0234
aweeks@catf.us

*Counsel for Intervenors American
Lung Association and Appalachian
Mountain Club*

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

In accordance with Circuit Rule 28(a)(1), American Lung Association, Appalachian Mountain Club, Environmental Defense Fund, and Sierra Club (collectively, “Public Health and Environmental Respondent-Intervenors”) hereby submit this certificate as to parties, rulings, and related cases.

(A) Parties, Intervenors and *Amici*

(i) Parties, Intervenors, and *Amici* Who Appeared in the District Court

This case is a petition for review of final agency action, not an appeal from the ruling of a district court.

(ii) Parties to This Case

Petitioners:

16-1406 – State of Wisconsin, State of Alabama, State of Arkansas, State of Ohio, State of Wyoming

16-1428 – State of Texas and Texas Commission on Environmental Quality

16-1429 – Murray Energy Corporation

16-1432 – Western Farmers Electric Cooperative

16-1435 – Utility Air Regulatory Group

16-1436 – Midwest Ozone Group

16-1437 – Indiana Energy Association and Indiana Utility Group

16-1438 – City of Ames, Iowa

- 16-1439 – Luminant Generation Company, LLC; Big Brown Power Company, LLC; Luminant Mining Company, LLC; La Frontera Holdings, LLC; Oak Grove Management Company, LLC; Sandow Power Company, LLC
- 16-1440 – Mississippi Power Company
- 16-1441 – The Ohio Utility Group; AEP Generation Resources, Inc.; Buckeye Power, Inc.; The Dayton Power and Light Company; Duke Energy Ohio, Incorporated; Dynegy Commercial Asset Management, LLC; First Energy Solutions; Ohio Valley Electric Corporation
- 16-1442 – Wisconsin Paper Council, Wisconsin Manufacturers and Commerce, Wisconsin Industrial Energy Group, Wisconsin Cast Metals Association
- 16-1443 – Sierra Club and Appalachian Mountain Club
- 16-1444 – Oklahoma Gas and Electric Company
- 16-1445 – Prairie State Generating Company, LLC
- 16-1448 – State of Delaware Department of Natural Resources & Environmental Control
- 17-1066 – Cedar Falls Utilities

Respondents:

The U.S. Environmental Protection Agency (“EPA”) is listed as a respondent in all consolidated cases except case 16-1441. E. Scott Pruitt, Administrator of the U.S. Environmental Protection Agency, is listed as a respondent in all cases except cases 16-1435, 16-1438, 16-1445, 16-1448, and 17-1066.

Intervenors:

The following entities have moved to intervene in all consolidated cases: American Lung Association; Appalachian Mountain Club; Environmental Defense Fund; Environmental Committee of the Florida Electric Power Coordinating Group, Inc.; and Sierra Club.

The following entities have moved to intervene in all consolidated cases except cases 16-1443 and 16-1448: State of New York, State of Maryland, State of New Hampshire, State of Rhode Island, State of Vermont, and Commonwealth of Massachusetts.

Other intervenors include: Cedar Falls Municipal Utilities; Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; Environmental Committee of the Florida Electric Power Coordinating Group, Inc.; Murray Energy Corporation; and Utility Air Regulatory Group.

(iii) Amici in This Case

The American Thoracic Society filed a motion to participate as amicus curiae on February 16, 2017. An order was entered granting their participation on March 2, 2017.

(B) Circuit Rule 26.1 Disclosure of Sierra Club and Appalachian Mountain Club

See disclosure statement *infra* pages vii-ix.

(C) Ruling Under Review

Petitioners seek review of the final action taken by EPA at 81 Fed. Reg 74,504 (Oct. 26, 2016), JA0001, titled “Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS.”

(D) Related Cases

Public Health and Environmental Respondent-Intervenors are unaware of any related cases other than the consolidated cases listed above.

RULE 26.1 DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, Public Health and Environmental Respondent-Intervenors make the following disclosures:

American Lung Association

Non-Governmental Corporate Party to this Action: American Lung Association (“ALA”).

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party’s Stock: None.

Party’s General Nature and Purpose: ALA is a corporation organized and existing under the laws of Maine. ALA is a national nonprofit organization dedicated to a world free of lung disease and to saving lives by preventing lung disease and promoting lung health. ALA’s Board of Directors includes pulmonologists and other health professionals.

Appalachian Mountain Club

Non-Governmental Corporate Party to this Action: Appalachian Mountain Club.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party’s Stock: None.

Party’s General Nature and Purpose: Appalachian Mountain Club is a regional nonprofit organization representing more than 90,000 members in the Eastern U.S.

The organization promotes getting people outdoors for safe and healthy recreation and works to protect the health of the landscapes and waterways of the Northeast.

Environmental Defense Fund

Non-Governmental Corporate Party to this Action: Environmental Defense Fund.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: EDF, a corporation organized and existing under the laws of the State of New York, is a national nonprofit organization that links science, economics, and law to create innovative, equitable, and cost-effective solutions to society's most urgent environmental problems.

Sierra Club

Non-Governmental Corporate Party to this Action: Sierra Club.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Sierra Club is a national nonprofit environmental organization with more than 667,000 members nationwide. Sierra Club's purposes are to explore, enjoy, and protect the wild places of the Earth; to practice and promote the responsible use of the Earth's ecosystems and resources; to educate and enlist humanity in the protection and restoration of the quality of the

natural and human environment; and to use all lawful means to carry out these objectives.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Pursuant to Circuit Rule 28(a)(3), the following is a glossary of acronyms and abbreviations used in this brief:

2016 Transport Rule	81 Fed. Reg. 74,504 (Oct. 26, 2016)
Act	Clean Air Act
CSAPR	Cross-State Air Pollution Rule
EPA	U.S. Environmental Protection Agency
JA	Joint Appendix
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen oxides
RIA	Regulatory Impact Analysis
VOC	Volatile organic compounds

Respondent-Intervenors American Lung Association, Appalachian Mountain Club, Environmental Defense Fund, and Sierra Club (“Public Health and Environmental Respondent-Intervenors”) respectfully submit this brief in response to the briefs of Petitioners Utility Air Regulatory Group, *et al.* (“Industry Petitioners”) and Wisconsin, *et al.* (“Upwind State Petitioners”).¹

STATUTES AND REGULATIONS

Pertinent statutes and regulations are set out in the addenda to the briefs of Conservation Groups and State of Delaware Petitioners, and Joint Industry Petitioners.

BACKGROUND

The relevant Clean Air Act (the “Act”) provisions, regulatory history, and design of the rule challenged here, the Cross-State Air Pollution Rule (“CSAPR”) Update for the 2008 Ozone National Ambient Air Quality Standards (“NAAQS”), 81 Fed. Reg. 74,504 (Oct. 26, 2016) (the “2016 Transport Rule” or “Rule”), JA0001, are described at pages 3-22 of Respondent Environmental Protection Agency’s (“EPA”) brief. We provide brief additional background concerning the Rule’s important health and environmental benefits.

¹ Respondent-Intervenors Appalachian Mountain Club and Sierra Club are also petitioners and have submitted a brief in that capacity (together with the State of Delaware).

Interstate pollution poses a distinct challenge in our federal system. Upwind States may lack incentive to control pollution insofar as it affects their neighbors, and downwind States lack the authority to regulate “persons beyond [their] control,” *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 238 (1907). Indeed, well over half of ground-level ozone in the Eastern United States is produced by precursor emissions from upwind states. 81 Fed. Reg. at 74,514, JA0011. Such pollution creates both public health and economic harms for downwind states, which may be forced to impose far more stringent, and expensive, controls than upwind neighbors.

Congress enacted, and strengthened, interstate air pollution protections in clean air legislation adopted in 1963, 1970, 1977, and 1990. *See EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1594-95 (2014) (“*EME Homer City*”). The Clean Air Act’s current “Good Neighbor” provision prohibits air pollution that “contribute[s] significantly” to nonattainment of or interferes with maintenance of air quality standards in downwind states. 42 U.S.C. § 7410(a)(2)(D)(i)(I); *see also id.* § 7426(b).

Confronting a complex web of interactions between upwind pollution and downwind air quality problems covering much of the Eastern United States, EPA has implemented a succession of regional rules to enforce states’ obligations under the Good Neighbor Provision, which have been subject to legal challenges yielding

comprehensive judicial opinions. *See EME Homer City*, 134 S. Ct. at 1594-97. In the 2016 Transport Rule, EPA implemented Good Neighbor requirements, this time in pursuit of attainment of the 2008 ozone standard.

Ground-level ozone, also known as smog, a pollutant regulated under the Clean Air Act (*see* 42 U.S.C. §§ 7408-10; 40 C.F.R. Pt. 50), develops when nitrogen oxides (“NO_x”) mix with volatile organic compounds (“VOCs”) in the presence of sunlight. Warmer air feeds and speeds its production. Ozone is a caustic pollutant that irritates the lungs, causing shortness of breath and coughing, and exacerbates lung conditions like asthma, causing increased numbers of emergency room visits and hospitalizations. Exposure to ambient ozone is also linked to a wide array of serious heart and lung diseases, as well as premature death. Ozone pollution is particularly harmful for children, seniors, people with lung impairments like asthma and chronic obstructive pulmonary disease, and anyone active outdoors. 81 Fed. Reg. at 74,514, JA0011.²

² EPA, Fact Sheet, Overview of EPA’s Updates to the Air Quality Standards for Ground-Level Ozone (Oct. 2015), JA1467, *available at* https://www.epa.gov/sites/production/files/2015-10/documents/overview_of_2015_rule.pdf (last visited Feb. 15, 2018); *see also* EPA, Integrated Science Assessment (ISA) of Ozone and Related Photochemical Oxidants, Final Report (Feb. 2013), *available at* <http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492#Download> (last visited Feb. 15, 2018). Recent studies show that ozone and particulate matter associated with ozone cause even more premature deaths in the elderly, and at lower ambient levels, than was previously understood by EPA at the time the 2016

Many of the most populous areas of the country have suffered from persistent nonattainment of health-protective ozone standards including the 2008 ozone standard at issue here. In many areas, this serious and chronic public health hazard is due, in large part, to the effect of pollutants transported from upwind states. *See* 80 Fed. Reg. 75,706, 75,711 (Dec. 3, 2015), JA0154. By reducing emissions of ozone precursors from power plants located in 22 upwind states, the 2016 Transport Rule will reduce exposure to ground-level ozone for millions of Americans.

Whatever the metric chosen, the 2016 Transport Rule's public health and environmental benefits far exceed the Rule's costs. Because NO_x is a precursor pollutant to both ozone and particulate matter, reducing 22 CSAPR states' NO_x emissions during the ozone season (generally May 1 through September 30)

Transport Rule was finalized. *See* Tony Barboza, "Air pollution exposure may hasten death, even at levels deemed 'safe,' study says," *Los Angeles Times* (June 28, 2017), *available at* <http://www.latimes.com/science/sciencenow/la-sci-sn-air-pollution-death-20170628-story.html> (last visited Feb. 15, 2018) (discussing Qian Di, et al., "Air Pollution and Mortality in the Medicare Population," 376 *New Eng. J. Med.* 2513 (June 2017)); Brian Bienkowski, "'Safe' levels? Small amounts of air pollution linked to more death for senior citizens: Study," *Env't'l Health News* (Dec. 27, 2017), *available at* www.ehn.org/how-does-air-pollution-affect-elderly-2519387578.html (last visited Feb. 15, 2018) (discussing Qian Di, et al., "Association of Short-term Exposure to Air Pollution With Mortality in Older Adults," 318 *JAMA* 2446 (Dec. 2017)).

reduces the breathing public's exposure to ambient ozone and fine particulates.³

As EPA describes and evaluates in the final Rule and the Regulatory Impact Analysis accompanying it, these ozone and particulate matter reductions mean reduced numbers of premature deaths, many fewer hospitalizations of children and adults due to respiratory illnesses including asthma, fewer cases of childhood bronchitis and exacerbated asthma, and fewer lost work and school days, among other human health benefits *each year* beginning in 2017.⁴

The economic value of some of these public health benefits can be monetized using well-established, peer-reviewed methodologies. EPA performed this analysis in its RIA,⁵ which reports a range of monetized expected public health

³ See 81 Fed. Reg. at 74,553, tbl. VI.E-2, JA0050, showing 2015 and final CSAPR Update ozone season NO_x emissions, which are 20 percent lower overall than the 2015 level. The ozone reductions, and the health benefits that accompany them, will also accrue outside the ozone season, as will the particulate matter related health benefits. The additional NO_x reductions outside the ozone season will raise the total expected NO_x reductions to around 75,000 tons. *Id.* at 74,573, tbl. VIII.1, JA0070; EPA, Regulatory Impact Analysis at 5-20, tbl. 5-3, JA0754 (EPA-HQ-OAR-2015-0500-0580) (Sept. 2016) ("RIA").

⁴ 81 Fed. Reg. at 74,505, 74,574 & tbls. VIII.3 & VIII.4, JA0002, 0071-72 (summarizing the avoided human health effects of exposure to ozone and particulate matter expected in 2017 from implementation of the Rule, including among other benefits, over 60 avoided deaths each year, over 67,000 avoided child asthma exacerbations, over 56,000 avoided missed school days, and over 240 emergency room visits for asthma); RIA at 5-5, tbl. 5-1, JA0739.

⁵ RIA, Chapter 5, 5-14 to 5-28, JA0748-62; *see also id.* at 5-20, tbl. 5-4, JA0754 (presenting summary of estimated monetized health benefits of the Rule).

benefits values of between \$370 million and \$610 million annually, reflecting only benefits in the 22-state region subject to the Rule's requirements, and only the ozone season ozone-related benefits.⁶ Other known public health benefits of the Rule—for example avoided respiratory illnesses due to exposure to NO_x as nitrogen dioxide—cannot be monetized, but are certainly valuable.⁷

The Rule's reductions in ozone and particulate matter also yield significant environmental benefits which EPA does not yet have the tools to monetize. These benefits include, among others, avoided forest and other vegetation damage, visibility gains in national and state parks, and benefits to sensitive ecosystems in lakes, streams, coastal waters, and estuaries.⁸ The monetized figures for the public health and welfare benefits of the Rule as reported in the RIA are therefore undercounted, and do not represent their full total public value. Yet even the range

⁶ RIA at 5-2, JA0736 (reported benefits only those in the 22 state region), 5-20, tbl. 5-4, JA0754 (range of benefit values reflects the use of discount rates of 3% and 7% in the analysis). Total benefits of the rule, including those associated with NO_x as fine particulate matter, are estimated at \$460 to \$810 million annually, and even that figure does not include all benefits, only those associated with reduced NO_x emissions, and that can be monetized. *Id.*; EPA Br. 111. EPA also reports \$66 million (\$2011) in annual climate co-benefits of the Rule. EPA Br. 111; RIA at 5-39, tbl. 5-9, JA0773 (reporting health benefits and climate co-benefits; \$66 million is the value EPA chose for its reporting, using a 3% interest rate).

⁷ The unquantified benefits of the Rule are summarized in the RIA. RIA at 5-40, tbl. 5-10, JA0774-75; *see also id.* at 5-5, tbl. 5-1, JA0739.

⁸ 81 Fed. Reg. at 74,505, 74,509, 74,514, 74,573-575, 74,581-82, JA0002, 0006, 0011, 0070-72, 00078-79; RIA at 5-39 to 5-43 & tbl. 5-10, JA0773-77.

of reported monetizable benefits outweighs the \$68 million annual cost of the Rule by factors of 10 or more.

SUMMARY OF ARGUMENT

As EPA and New York, et al. (“Downwind State Respondent-Intervenors”) demonstrate, Upwind State and Industry Petitioners’ challenges to the 2016 Transport Rule are meritless.

Contrary to Industry Petitioners’ argument, a Clean Air Act provision addressing nonattainment caused by air pollution originating from outside the United States’ borders, 42 U.S.C. § 7509a, does not diminish upwind states’ obligations under the Good Neighbor Provision, or call the Rule into question.

EPA properly followed the safeguards against “over-control” as set out by the Supreme Court and this Court. Industry Petitioners’ argument based upon the aggregate avoided pollution contributions from unlinked states misses the mark, and, in any event, Industry Petitioners fail to show that such emissions reductions lead to over-control in any affected state.

Upwind State Petitioners’ argument that EPA did not properly account for biogenic ozone precursors was not raised in comments, and is therefore not properly before the Court. The argument is meritless in any event.

Finally, if any of the Upwind State Petitioners’ claims were sustained, the proper remedy would not be, as they claim, vacatur of the Rule. Rather, given the

Rule's importance for public health and the disruption that vacatur would entail, the proper remedy would be remand without vacatur.

ARGUMENT

Industry and Upwind State Petitioners raise a scattershot array of challenges to the Rule, all of which are answered in EPA's and Downwind State Respondent-Intervenors' Briefs. We respond briefly to certain of these arguments.

I. THE INTERNATIONAL AIR POLLUTION PROVISION CITED BY INDUSTRY PETITIONERS DOES NOT EXCUSE STATES FROM THEIR GOOD NEIGHBOR OBLIGATIONS

Seeking to evade responsibility for the *interstate* emissions they cause, Industry Petitioners point (Br. 15-17) to *international* emissions they claim should instead bear responsibility. Industry Petitioners are mistaken. Under the Clean Air Act provision they cite, EPA is required to approve an implementation plan that meets all requirements to demonstrate attainment and maintenance of a NAAQS where the submitting state establishes to EPA's satisfaction that the plan would be adequate to attain and maintain the standards but for emissions emanating from outside of the United States. 42 U.S.C. § 7509a(a)(1)-(2). But this provision does not transform international emissions into an excuse to evade upwind states' statutory Good Neighbor obligations.

The focus of section 7509a differs from that of the Good Neighbor Provision. While a state's submission of a plan to "attain and maintain" the

NAAQS can trigger section 7509a, the Good Neighbor Provision does not require the upwind state to submit such a plan—*i.e.*, an attainment and maintenance plan—for a downwind state. On the contrary, that is the job of the downwind state itself, under statutory language (“within such State”) quoted in Industry’s own brief (at 16, quoting 42 U.S.C. § 7410(a)(1)).

Instead, the Good Neighbor Provision requires the upwind state’s plan to prohibit emissions that “contribute” significantly to nonattainment or “interfere” with maintenance in the downwind state. 42 U.S.C. § 7410(a)(2)(D)(i)(I). It does not follow that if international emissions *do* contribute to nonattainment or interfere with maintenance, then upwind state emissions *do not* contribute or interfere. As the Supreme Court has observed, “there are often multiple interrelated factual events that combine to cause any given injury.” *Olympic Airways v. Husain*, 540 U.S. 644, 653 (2004). “Indeed, the very fact that multiple events will necessarily combine and interrelate to cause any particular injury makes it difficult to define, in any coherent or non-question-begging way, any single event as *the* ‘injury producing event.’” *Id.* (emphasis in original). Thus, this Court has rejected attempts to define “contribute” narrowly, including in environmental cases. *Catawba Cnty. v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009) (because “a contribution may simply exacerbate a problem rather than cause it,” pollution is cognizable under the Act’s nonattainment area designation provision

“even though a nearby county’s nonattainment problem would still persist in its absence”); *Miss. Comm’n on Env’tl. Quality v. EPA*, 790 F.3d 138, 163 & n.12 (D.C. Cir. 2015) (“Indiana protests that there likely would have been no violation at all at the Zion monitor if it were not for the emissions” from Illinois, but “[t]hat argument is merely a rephrasing of the but-for causation rule that we rejected in *Catawba County.*”); *CTS Corp. v. EPA*, 759 F.3d 52, 59-60 (D.C. Cir. 2014) (to conclude that a given site contributed to groundwater contamination, EPA did not have to rule out other potential causes such as septic tanks).

In short, emissions from a particular upwind state can—and do—contribute or interfere, even if *other* emission sources elsewhere do also. As EPA points out, even if a given downwind receptor might attain the NAAQS absent international emissions, “[m]any (or perhaps all) receptors would *also* attain the NAAQS if all in-state contributions were eliminated, *or* if all upwind contributions were eliminated, *or* if all non-anthropogenic contributions were eliminated.” EPA Br. 65 (emphasis in original). To allow upwind states to evade their statutory emission reduction obligations in the hope that (nonexistent) international negotiations may someday solve the problem would carve an exemption into the express obligations imposed by the Good Neighbor Provision, and would unconscionably delay relief to downwind residents suffering health- and life-threatening pollution.

II. INDUSTRY PETITIONERS' "OVER-CONTROL" ARGUMENT BASED ON INCIDENTAL REDUCTIONS FROM "UNLINKED" STATES LACKS MERIT

While it upheld the methodology underlying CSAPR, the Supreme Court in *EME Homer City* also held that EPA may not require a state to reduce its emissions beyond the level necessary to provide for attainment and maintenance in all of the downwind states to which it is linked, or to reduce its contributions to all downwind states to which it is linked below the level EPA has defined as "significant" (here, as in *EME Homer City*, one percent of the relevant NAAQS). 134 S. Ct. at 1608-09, 1604 n.18. On remand, this Court applied these tests and found that certain states' CSAPR budgets constituted impermissible "over-control" under these tests. *See EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 128-29 (D.C. Cir 2015) ("*Homer City II*") (because the sole upwind receptor to which Texas was linked would attain the relevant NAAQS even if Texas implemented emissions controls equivalent to \$100/ton, \$500/ton stringency represented over-control).

In developing the instant Rule, EPA heeded these limits, analyzing whether the proposed rule would result in either form of "over-control" identified by the Supreme Court. *See* 81 Fed. Reg. at 74,551-52, JA0048-49. EPA found "that under the \$800 per ton and \$1,400 per ton emission budgets, all 22 Eastern states that contributed greater than or equal to the one percent threshold in the base case

continued to contribute greater than or equal to one percent of the NAAQS to at least one downwind nonattainment or maintenance receptor” under the Rule. *Id.* at 74,552, JA0049. After analyzing the relationship between emissions from each covered upwind state and the downwind receptors to which each is linked, “the \$1,400 per ton emission budget level would not constitute over-control for Tennessee or for any other state included in the CSAPR Update.” *Id.*

Petitioners do not attempt to show that the Rule constitutes over-control in the *Homer City II* sense. They do not allege, as the *Homer City II* challengers showed after remand, 795 F.3d at 128-30, that specific, identified upwind states had been required to cut their emissions by more than necessary to satisfy their Good Neighbor obligations. Unable to find fault with EPA’s careful application of the Supreme Court’s instructions about over-control as articulated in *Homer City II*, Industry Petitioners seek to devise another test.

Industry Petitioners contend that EPA’s analysis in the 2016 Transport Rule was “fatally inadequate” (Br. 18) because the agency failed to ensure that the reductions in pollution from upwind states *not* linked to a particular downwind receptor in a nonattainment or maintenance state did not produce “over-control” in that downwind state. Br. 19-22.

Industry Petitioners’ argument is meritless. Nothing in the statute or *Homer City II*’s discussion of over-control exempts upwind states from Good Neighbor

obligations when, as here, their contributions to documented nonattainment or maintenance problems in at least one downwind state exceeds the significance threshold. Unlike the challengers in *Homer City II*, petitioners do not even attempt to demonstrate that EPA could have fully redressed all nonattainment or maintenance problems by employing a lower cost threshold. In particular, Industry Petitioners do not show a single instance in which the incidental reductions in emissions from states not linked to particular downwind attainment receptors will eliminate those nonattainment problems. *See* EPA Br. 80-81 & n.17 (applying the \$1,400/ton threshold across entire contiguous United States would not eliminate nonattainment problems) (citing Air Quality Assessment Tool, Final Calibrated Spreadsheet, JA0325-45 (EPA-HQ-OAR-2015-0500-0492)).

Further undercutting Petitioners' claims, the record shows that nonattainment and maintenance concerns will remain in all of the affected downwind states, even after application of the 2016 Transport Rule. *See* 81 Fed. Reg. at 74,552, JA0049 (finding that with respect to 21 of the 22 upwind states, the Rule's requirements will "represent a *partial* solution to these states' good neighbor obligation with respect to the 2008 ozone NAAQS" (emphasis added)); *id.* at 74,520, JA0017 ("the EPA is only quantifying a subset of each state's emission reduction obligation pursuant to the good neighbor provision").

Industry Petitioners have not come close to meeting their burden, *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 869 (D.C. Cir. 2001), to demonstrate any error in EPA's analysis. As the Supreme Court made clear, the prohibition on over-control does not disable EPA from protecting downwind states' populations from interstate pollution: "while EPA has a statutory duty to avoid over-control, the Agency also has a statutory obligation to avoid 'under-control,' *i.e.*, to maximize achievement of attainment downwind." 134 S. Ct. at 1609. *EME Homer City* pointedly does not require EPA to perform endless analyses or satisfy every claimant who contends that clean-up burdens should be allocated differently. *See id.* ("Required to balance the possibilities of under-control and over-control, EPA must have leeway in fulfilling its statutory mandate."). Petitioners' over-control claim should be rejected.

III. UPWIND STATE PETITIONERS' CLAIMS ABOUT BIOGENIC EMISSIONS ARE WAIVED AND MERITLESS.

In its air quality modeling in support of the Rule, EPA expressly addressed not only ozone that results from precursors (VOC and NO_x) that are purely anthropogenic or purely biogenic, 81 Fed. Reg. at 74,536-37, JA0033-34, but also ozone that results from a *combination* of anthropogenic precursors with biogenic ones: "ozone formed from reactions between biogenic VOC and NO_x with anthropogenic NO_x and VOC are assigned to the anthropogenic emissions." *Id.* at 74,536 n.123, JA0033; *see also* CAMx User's Guide, Version 6.2 at 168-71,

JA1447-50 (Mar. 2015), *available at*

http://www.camx.com/files/camxusersguide_v6-20.pdf (last visited Feb. 15, 2018).

Upwind State Petitioners⁹ theorize that EPA has “in essence double counted” by failing to consider that “if anthropogenic emissions of VOCs or NO_x from an upwind State were reduced or eliminated, some of the now-free biogenic VOCs will combine with the now-free biogenic NO_x to produce pure biogenic ozone.”

Br. 39. This objection is both waived and meritless.

First, Upwind State Petitioners have identified no rulemaking comment that raised this objection. Instead they cite a comment (Br. 40, citing Cedar Falls Comments at 10, JA1177 (EPA-HQ-OAR-2015-0500-0325)) that made a *different* objection: that EPA failed to “emphasize the significance of [electric generating units] as compared to other *human* activity sources” Cedar Falls Comments at 9-10, JA1176-77 (emphasis added). This comment concerning the interaction between different forms of *anthropogenic* emissions failed to raise with “reasonable specificity,” 42 U.S.C. § 7607(d)(7)(B)—or indeed at all—the objection raised here concerning the alleged misclassification of *biogenic* emissions as anthropogenic.¹⁰

⁹ Except Alabama, Br. 38 n.21.

¹⁰ Petitioners’ other citation—to an appendix that in passing described EPA’s modeling approach without raising the objection urged here (Br. 40, citing Ex. D to Cedar Falls Comments, JA1291)—is likewise unavailing.

Second, Upwind State Petitioners' objection fails on the merits. They offer no citation to the record or any other authority to support their conclusory statements about ozone formation. In particular, they do not address other plausible outcomes of their hypothesized change in precursor emissions—for example, that ozone formation is limited by the availability of NO_x. 81 Fed. Reg. at 74,514, JA0011. Indeed, the modeling document on which EPA relied explained that under NO_x-limited conditions, EPA's chosen modeling approach (APCA) "will produce identical results" to the one advocated by Upwind State Petitioners [OSAT]. CAMx User's Guide, Version 6.2 at 171, JA1450.¹¹ Upwind State Petitioners' vague speculations about ozone formation are insufficient to displace EPA's approach to this issue. *Cf. Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1050 (D.C. Cir. 2001) (court upheld EPA interstate air pollution rule, where *inter alia* petitioners' "vague claim" about ozone formation "in no way quantifie[d]" the factual phenomenon they alleged).

IV. IF THE COURT SUSTAINS ANY OF THE UPWIND STATES' CHALLENGES, IT SHOULD REMAND THE RULE TO EPA WITHOUT VACATUR

Upwind State Petitioners request that the Court either vacate the Rule in toto or vacate various challenged portions of it. *See* Upwind State Petitioners Br. 4, 23

¹¹ *See* Upwind State Petitioners Br. 40 (criticizing EPA's use of APCA instead of OSAT).

& n.12, 41; Industry Petitioners Br. 42 (seeking remand only); Conservation Groups/Delaware Petitioners Br. 50-51 (seeking remand without vacatur except as to portion of rule allowing use of banked 2016 allowances for 2017 ozone-season compliance).

Because Upwind State Petitioners' objections to the Rule lack merit, their petition for review should be denied. In the event the Court were to find merit in any of their challenges, however, the only proper remedy would be remand without vacatur. *See Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm'n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993). This Court has repeatedly held that remand without vacatur is appropriate where the challenged regulations protect public health and safety—including in cases involving two predecessor interstate air pollution rules. *See North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir.), *reh'g granted in part*, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (on rehearing, remanding without vacatur because "vacatur would at least temporarily defeat . . . the enhanced protection of the environmental values covered by the" Clean Air Interstate Rule (citation omitted)); *Homer City II*, 795 F.3d at 132 (finding various state budgets invalid, but remanding CSAPR without vacatur).¹² This Court has regularly remanded without

¹² Upwind State Petitioners' cryptic footnote advocating vacatur does not acknowledge this Court's decisions remanding without vacatur in order to safeguard the health benefits of interstate air pollution rules while EPA corrects the identified flaws. *See* Br. 23 n.12. Their claim that EPA needed to do more

vacatur where vacatur of regulations protecting public health and the environment could cause harm to the public health or welfare, *see, e.g., Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1161 (D.C. Cir. 2013) (remanding without vacatur Clean Air Act emissions standards for hazardous pollutant emissions from sewage sludge incinerators despite finding multiple flaws in EPA's analysis); *Sierra Club v. EPA*, 167 F.3d 658, 664 (D.C. Cir. 1999) (remanding flawed Clean Air Act rule "rather than eliminate any federal control at all"); *Mississippi v. EPA*, 744 F.3d 1334, 1362 (D.C. Cir. 2013) (remanding so as not to "sacrifice" environmental protection from Clean Air Act rule); *North Carolina*, 550 F.3d at 1178; *Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 635, 641 (D.C. Cir. 2000) (remanding hazardous air pollution regulations without vacatur).

These considerations plainly apply here: the 2016 Transport Rule provides important public health benefits, particularly for children and other vulnerable populations, that would be lost were the rule vacated, *see supra* pp. 3-5; it furthers downwind states' ability to meet their own Clean Air Act obligations, *see generally* Br. of Downwind State Respondent-Intervenors, and it establishes an integrated interstate remedy that would be disrupted by vacatur of individual

economic analysis, even if valid, is far less definitive a legal defect than the "fundamental flaws" the *North Carolina* Court found in the Clean Air Interstate Rule, *see* 531 F.3d at 929-30, which the Court determined did not warrant vacatur.

statute budgets, *see Homer City II*, 795 F.3d at 132 (noting that vacatur could interfere with emissions trading markets).¹³ Vacating the Rule would increase interstate air pollution, harming public health and burdening downwind states' ability to attain and maintain air quality standards. Accordingly, Upwind State Petitioners' requests for vacatur should be rejected.

CONCLUSION

The Upwind States Petitioners' and Industry Petitioners' petitions for review should be denied.

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Respectfully submitted,

/s/ Charles McPhedran
Charles McPhedran
Earthjustice
1617 JFK Boulevard, Suite 1130
Philadelphia, PA 19103
(215) 717-4521
cmcphedran@earthjustice.org

Counsel for Intervenor Sierra Club

/s/ Sean H. Donahue
Sean H. Donahue
Susannah L. Weaver
Donahue & Goldberg, LLP
1111 14th St. NW, Suite 510A
Washington, DC 20005
(202) 277-7085
sean@donahuegoldberg.com
susannah@donahuegoldberg.com

*Counsel for Intervenor
Environmental Defense Fund*

¹³ On the other hand, remand without vacatur would cause no significant disruption. *See* EPA Br. 82 n.18 (noting that no state exceeded its assurance level and that collectively states' emissions were seven percent below their collective budgets) (citation omitted); *see also id.* 91 n.22, 98 n.25.

Neil Gormley
David Baron
Howard Fox
Earthjustice
1625 Massachusetts Ave., NW, Suite 702
Washington, DC 20036
(202) 667-4500
ngormley@earthjustice.org
dbaron@earthjustice.org
hfox@earthjustice.org

Joshua R. Stebbins
Zachary M. Fabish
Sierra Club
50 F Street NW, 8th Floor
Washington, DC 20001
(202) 675-7917
josh.stebbins@sierraclub.org
zachary.fabish@sierraclub.org

Counsel for Intervenor Sierra Club

Graham G. McCahan
Vickie L. Patton
Environmental Defense Fund
2060 Broadway, Suite 300
Boulder, CO 80302
(303) 447-7228
gmccahan@edf.org
vpatton@edf.org

*Counsel for Intervenor
Environmental Defense Fund*

/s/ Ann B. Weeks
Ann B. Weeks
Clean Air Task Force
18 Tremont St., Suite 530
Boston, MA 02108
(617) 624-0234
aweeks@catf.us

*Counsel for Intervenors American
Lung Association and Appalachian
Mountain Club*

CERTIFICATE OF COMPLIANCE

Counsel hereby certifies that, in accordance with the Order Setting the Briefing Format entered on September 6, 2017, the foregoing **Final Brief of Public Health and Environmental Respondent-Intervenors** contains 4,290 words, as counted by counsel's word processing system, and thus complies with the 12,600 word limit established by the Court's Order when combined with the State Respondent-Intervenor brief word-count.

Further, this document complies with the typeface and type-style requirements of Federal Rules of Appellate Procedure 32(a)(5) & (a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2010 using 14-point Times New Roman font.

DATED: April 9, 2018

/s/ Charles McPhedran
Charles McPhedran

CERTIFICATE OF SERVICE

I hereby certify that on this 9th day of April, 2018, I have served the foregoing **Final Brief of Public Health and Environmental Respondent-Intervenors** on all registered counsel through the Court's electronic filing system (ECF).

/s/ Charles McPhedran
Charles McPhedran