

NOT YET SCHEDULED FOR ORAL ARGUMENT

No. 16-1406
(and consolidated cases)

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

STATE OF WISCONSIN, ET AL.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ET AL.,

Respondents.

On Petitions for Review of Final Action
by the United States Environmental Protection Agency

RESPONDENT EPA'S FINAL CORRECTED BRIEF

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Circuit Rule 28(a)(1), the undersigned counsel certifies as follows:

A. Parties and Amici.

All parties, intervenors, and amici appearing in this Court are listed in the Briefs for State Petitioners, Cedar Falls Utilities and City of Ames (Doc. 1693484) (“State Br.”); Petitioners Conservation Groups and the State of Delaware (Doc. 1693488) (“Env. Br.”); and Industry Petitioners (Doc. 1693490) (“Indus. Br.”).

B. Rulings Under Review.

The agency action under review is a final rule entitled “Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS,” 81 Fed. Reg. 74,504 (Oct. 26, 2016).

C. Related Cases.

These cases have not previously been before this Court or any other court, aside from Case 17-1066, which was transferred to this Court from the United States Court of Appeals for the Eighth Circuit, and consolidated with these cases.

/s/ Chloe H. Kolman

CHLOE H. KOLMAN

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LEGISLATIVE HISTORY

S. Rep. No. 95-127, at 4229

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GLOSSARY

CAA	Clean Air Act, 42 U.S.C. § 7401 et seq.
CAIR	Clean Air Interstate Rule, 70 Fed. Reg. 25,162 (May 12, 2005)
CSAPR	Cross-State Air Pollution Rule, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (also formerly known as the “Transport Rule”)
CSAPR Update	Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 Fed. Reg. 74,504 (Oct. 26, 2016)
EGU	Electric Generating Unit
EPA	United States Environmental Protection Agency
FIP	Federal Implementation Plan
Good Neighbor Provision	42 U.S.C. § 7410(a)(2)(D)(i)(I)
IPM	Integrated Planning Model
NAAQS	National Ambient Air Quality Standard
NO _x	Nitrogen Oxides
ppb	Parts Per Billion
RACT	Reasonably Available Control Technology
RIA	Regulatory Impact Analysis, Dkt. No. EPA-HQ-OAR-2015-0500-0580
RTC	Response to Comments Document Dkt. No. EPA-HQ-OAR-2015-0500-0572
SCR	Selective Catalytic Reduction

SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO ₂	Sulfur Dioxide
TSD	Technical Support Document
lbs/mmBtu	Pounds per million British thermal units
VOC	Volatile Organic Compound

STATEMENT OF JURISDICTION

The Court lacks jurisdiction over the claims in State Petitioners' brief under Arguments IV, VI, and VII because those claims challenge separate EPA actions not before the Court in these petitions for review. The Court has jurisdiction over the remaining claims pursuant to 42 U.S.C. § 7607(b)(1).

STATEMENT OF THE ISSUES

In these consolidated petitions for review, Industry groups, States, and Environmental groups challenge various aspects of EPA's final rule, the "Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS," 81 Fed. Reg. 74,504 (Oct. 26, 2016) (the "CSAPR Update" or "Rule").

1. Whether EPA lawfully and reasonably promulgated the CSAPR Update shortly after the resolution of the *EME Homer* litigation to expeditiously implement achievable Good Neighbor emission reductions during the 2017 ozone season, in time for the 2018 moderate attainment date for the 2008 ozone NAAQS.
2. Whether EPA reasonably concluded that Delaware would attain and maintain the 2008 ozone NAAQS in the 2017 ozone season, and thus, no upwind state was required to implement Good Neighbor emission reductions specifically for Delaware's benefit.
3. Whether the Rule results in "over-control" of upwind emissions, where EPA applied the original CSAPR methodology and complied with this

Court's precedents and the Supreme Court's over-control analysis in *EME Homer*.

4. Whether state budgets and unit allocations were reasonable where EPA's projections of achievable emission reductions were grounded in historical operational data, employed reliable modeling, and reflected feasible emission controls.
5. Whether the Court has jurisdiction to review challenges to distinct EPA actions not under review in these consolidated petitions, and if so, whether EPA acted reasonably on the various state administrative submissions.

PERTINENT STATUTES AND REGULATIONS

Pertinent statutes and regulations not in Petitioners' addenda are reproduced in the addendum to this brief.

STATEMENT OF THE CASE

I. Introduction

EPA promulgated the CSAPR Update in 2016, continuing its efforts to address the difficult problem of state-to-state transported air pollution. The Supreme Court in *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014), had settled years of uncertainty about the scope of EPA's authority in this area by affirming EPA's approach to interpreting and implementing the Good Neighbor Provision, 42 U.S.C. § 7410(a)(2)(D)(i)(I), in the original Cross-State Air Pollution Rule. In the CSAPR Update, EPA used this same basic approach and methodology to address the 2008

ozone standard, specifically targeting nitrogen oxides (“NO_x”) emission reductions achievable in the next ozone season¹ (2017).

Numerous Petitioners sought review of the CSAPR Update. Environmental Petitioners and Delaware argue the Rule is insufficiently stringent, while Industry and other State Petitioners contend that it is too stringent. Neither position has merit. The Rule appropriately balances the obligation to implement Good Neighbor emission reductions as expeditiously as practicable to benefit impacted downwind states, while also ensuring that upwind states are not “over-controlled,” consistent with the instructions of the Supreme Court and this Court. EPA’s highly-technical determinations regarding upwind-to-downwind air pollution linkages and amounts of cost-effective emission reductions are supported by an expansive administrative record, in which EPA applied its substantial expertise to select appropriate state emission budgets and allocations for covered electric generating units. Therefore, EPA’s decision should be upheld.

II. Statutory Background

The Clean Air Act, 42 U.S.C. §§ 7401-7671q (“CAA” or the “Act”), is intended to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare.” *Id.* § 7401(b)(1). To that end, the CAA directs EPA to set National Ambient Air Quality Standards (“NAAQS”) for widely-occurring pollutants,

¹ For purposes of the Rule, the ozone season runs May 1-September 30. 81 Fed. Reg. at 74,507.

establishing permissible concentrations of those pollutants in the ambient air, and to determine whether or not all areas of the country are attaining these standards. *Id.* §§ 7409(b)(1), 7407. States have the responsibility to adopt state implementation plans – “SIPs” – to implement, maintain, and enforce the NAAQS and to bring “nonattainment” areas into compliance with the NAAQS. *Id.* §§ 7410(a), 7502, 7511-7511a. If states do not, EPA must adopt a federal implementation plan – or “FIP” – to address any deficiencies. *Id.* § 7410(c)(1).

A significant confounding factor in this regulatory process is that many states have problems attaining and maintaining the NAAQS due, in part, to emissions transported from other states, often over vast distances. This is particularly true for ozone, the NAAQS pollutant central to the CSAPR Update, which is formed by chemical reactions between NO_x and volatile organic compounds (“VOCs”) in the presence of sunlight. When a state’s pollution problems are caused in part by emissions from “upwind” states, the “downwind” State must regulate its own emission sources more stringently to compensate, and even then, some downwind areas still are unable to attain healthy air quality.

Congress has expressly addressed interstate pollution transport in a number of CAA provisions. In particular, the Good Neighbor Provision requires that each state’s implementation plan prohibit emissions transported beyond its borders that will “contribute significantly” to downwind nonattainment or “interfere with maintenance” in downwind areas. *Id.* § 7410(a)(2)(D)(i)(I).

III. Regulatory Background

EPA has addressed this Provision's requirements in a series of rulemakings. The "NO_x SIP Call" established the NO_x Budget Trading Program as a mechanism to address the interstate contributions of 22 States and the District of Columbia to ozone nonattainment, *see* 63 Fed. Reg. 57,356 (Oct. 27, 1998). This Court upheld the NO_x SIP Call in most significant respects, including EPA's application of a uniform cost threshold to identify necessary emission reductions in contributing upwind states. *Michigan v. EPA*, 213 F.3d 663 (D.C. Cir. 2000).

In 2005, EPA issued the Clean Air Interstate Rule, or "CAIR," to address newer air quality standards. 70 Fed. Reg. 25,162 (May 12, 2005). The Court invalidated CAIR on multiple grounds in *North Carolina v. EPA*, 531 F.3d 896, 910-11 (D.C. Cir. 2008). The Court held, *inter alia*, that CAIR failed to give independent significance to the phrase "interfere with maintenance" in the Good Neighbor Provision, and that the phrase requires EPA to address transported emissions affecting downwind areas that are at risk of falling out of attainment, as well as nonattainment areas. *Id.* The Court also held that EPA must consider attainment dates when implementing Good Neighbor emission reductions. *Id.* at 911-12, 930.

In 2011, EPA replaced CAIR with the original Cross-State Air Pollution Rule ("CSAPR"). 76 Fed. Reg. 48,208 (Aug. 8, 2011). CSAPR identified those states with emissions that significantly contribute to nonattainment or interfere with maintenance of the 1997 ozone or 1997 and 2006 fine particulate matter standards in other states,

established emissions budgets for covered electric generating units (“units” or “EGUs”) in each such state, and promulgated FIPs to achieve reductions in each state. *See* 76 Fed. Reg. at 48,209-16.

This Court vacated the original CSAPR, *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7 (D.C. Cir. 2012) (“*EME Homer P*”). Petitioners in that case raised numerous issues, but the panel addressed only two. First, the Court held that EPA’s methodology for determining the amount by which upwind States must reduce their emissions did not adequately ensure that no upwind State would be required to eliminate more than its significant contribution to downwind States. *Id.* at 19-22. Second, the Court held that EPA could not promulgate a FIP regarding interstate transport requirements until EPA determined the amount of emission reductions a state must achieve to eliminate its significant contribution to other states, and provided the state with an opportunity to implement those reductions through a SIP. *Id.* at 37.

The Supreme Court reversed on both issues. *EME Homer*, 134 S. Ct. 1584. Of particular relevance here, the Court held under *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984), that section 7410(a)(2)(D)(i)(I) is ambiguous, and thus that Congress delegated to EPA authority to determine what constitutes significant contribution to nonattainment or interference with maintenance, and that the CSAPR cost-threshold approach was reasonable. *EME Homer*, 134 S. Ct. at 1603-10.

The Supreme Court noted that interstate transport of ozone pollution required EPA to contend with thousands of “overlapping and interwoven linkages between upwind and downwind States,” *id.* at 1594, and concluded, *inter alia*, that EPA’s use of costs to differentiate among the contributions of upwind States was entitled to deference, *id.* at 1607. The Court specifically rejected the *EME Homer I* holding that the statute imposed a requirement that Good Neighbor emission reductions be based on each upwind state’s proportional impact on downwind air quality, instead finding that “[t]he Agency has chosen, sensibly in our view, to reduce the amount easier, i.e., less costly, to eradicate, and nothing in the text of the Good Neighbor Provision precludes that choice.” *Id.* at 1604-06, 1606-07.

The Supreme Court agreed with *EME Homer I* only to the extent that “[i]f EPA requires an upwind State to reduce emissions by more than the amount necessary to achieve attainment in every downwind State to which it is linked, the Agency will have overstepped its authority,” and that EPA cannot demand reductions that would drive an upwind state’s contribution to every downwind state to which it is linked below the significant contribution threshold used to link states. *Id.* at 1608.

The Court held, however, that the mere possibility of such over-control was not sufficient to justify vacatur of CSAPR. *Id.* The Court emphasized that “over control” with regard to one upwind-to-downwind state linkage may be incidental to reductions necessary to achieve attainment elsewhere. Specifically, the Court stated that “the Good Neighbor Provision seeks attainment in every downwind State” and

that “exceeding attainment in one State cannot rank as ‘over-control’ unless unnecessary to achieving attainment in *any* downwind State. Only reductions unnecessary to downwind attainment anywhere fall outside the Agency’s statutory authority.” *Id.* at 1609.

The Supreme Court further held that “while EPA has a statutory duty to avoid over-control, the Agency also has a statutory obligation to avoid ‘under control,’” and that “a degree of imprecision is inevitable in tackling the problem of interstate pollution.” *Id.* Consequently, some amount of over-control “would not be surprising” and “EPA must have leeway in fulfilling its statutory mandate.” *Id.*

On remand, the D.C. Circuit largely affirmed CSAPR. *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118 (D.C. Cir. 2015) (“*EME Homer IP*”). In evaluating the as-applied “over-control” challenges, the Court interpreted the Supreme Court’s decision to require an inquiry into “whether a downwind location would still attain its NAAQS if linked upwind States were subject to less stringent emissions limits.” *Id.* at 127. If a downwind area would attain and maintain the NAAQS regardless of the challenged emission limits, and the challenged emission limits were unnecessary to address issues at another downwind area, the court held that EPA would have “overstepped its authority.” *Id.* at 128. Applying this test, the court found that certain emission budgets for thirteen states were invalid, remanded those budgets, and rejected the remaining challenges to the Rule. *Id.* at 129-38.

IV. The Rule Under Review, the CSAPR Update

In 2008, EPA lowered the ozone NAAQS from 80 to 75 parts per billion (“ppb”). The CSAPR Update is EPA’s effort to address the Good Neighbor Provision for the 2008 ozone NAAQS (which was not addressed in CSAPR). As noted above, this Rule follows nearly two decades of litigation to determine the meaning and application of the Good Neighbor Provision, as well as nearly 20 years of technical and methodological refinement. As such, the Rule builds on the definitions, requirements, and methods already approved by reviewing courts as reasonable interpretations of the Act. In particular, the CSAPR Update applies the same four-step analytic framework used in the original CSAPR to identify states whose emissions of NO_x are affecting ozone pollution in downwind states in violation of the Good Neighbor Provision, and to implement necessary emission reductions in those states. 81 Fed. Reg. at 74,507.

As explained further below, EPA determined that 22 eastern states will contribute significantly to nonattainment or interfere with maintenance of the 2008 ozone NAAQS at nineteen downwind areas with projected air quality problems. Because EPA separately found these states also failed to address their Good Neighbor obligations in SIPs, EPA promulgated FIPs to implement necessary reductions in these states through a cap-and-trade program wherein electric generating units in those 22 states will either reduce or trade “allowances” for NO_x emissions, subject to

state-specific emission budgets developed through the application of a uniform level of NO_x control stringency, represented by cost, in each state.

EPA's analysis in the Rule focused on emission reductions achievable by the 2017 ozone season, mindful of the upcoming July 2018 attainment date. The Rule therefore addresses emissions from upwind states' electric generating units because EPA determined emission reductions from these units could be feasibly implemented by 2017, while additional time would be necessary to evaluate and implement additional reductions from electric generating units and reductions from other emission sources. 81 Fed. Reg. at 74,521-22. In light of EPA's determination that downwind air quality problems could persist after implementation of the Rule, EPA explained that the CSAPR Update was an important first step to address the Good Neighbor Provision for the 2008 ozone NAAQS, but that additional emission reductions may be required upon further analysis. 81 Fed. Reg. at 74,552.

The subsections that follow describe EPA's four-step methodology in detail: (1) Identify downwind areas expected to have problems attaining or maintaining the 2008 ozone NAAQS; (2) Determine which upwind states impact these areas in amounts sufficient to "link" them to downwind ozone problems; (3) Identify upwind emissions in such states that significantly contribute to downwind nonattainment or interfere with downwind maintenance of the NAAQS; and (4) Implement the necessary emission reductions via an allowance trading program. 81 Fed. Reg. at 74,507.

A. Step One: Identifying Downwind Air Quality Problems.

In Step 1 of its analysis, EPA identified downwind “receptors”: areas expected to have problems attaining or maintaining the ozone NAAQS level of 75 ppb in 2017. As in previous rules, EPA assessed projected air quality in 2017, the point at which the Rule’s obligations would take effect. 81 Fed. Reg. at 74,516, 74,526. This approach was upheld in *North Carolina* as a reasonable construction of the statute’s requirement that states prohibit emissions that “will” contribute to or interfere with air quality. 531 F.3d at 913, 914.

The Good Neighbor Provision does not set further terms for how to identify problem receptors, apart from specifying that EPA must separately identify areas where upwind emissions either “contribute significantly to nonattainment” or “interfere with maintenance” of the NAAQS. *See EME Homer*, 134 S. Ct. at 1603-04 (concluding that the Provision is generally ambiguous); *see also North Carolina*, 531 F.3d at 910-11 (requiring that EPA give “independent significance” to the maintenance “prong”). To effectuate these terms in the Rule, EPA employed a methodology substantially similar to that employed in the original CSAPR. This methodology estimates future air quality by taking monitored data and applying a fractional change (similar to a percent change) to that data. This fractional change, known as the relative response factor, represents how ozone at a given receptor responds to changes in emissions when all other variables are constant. Air Quality Modeling Technical Support Document at 12-13, EPA-HQ-OAR-2015-0500-0575, JA593-94

(“Modeling TSD”); Draft Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze at 99-103, EPA-HQ-OAR-2015-0500-0080, JA241-45 (“Modeling Guidance”).

First, EPA modeled 2011 air quality at all air quality monitors, generating projected ozone concentrations for each grid cell in a 12-km² grid with the monitor at their center (the 3x3 “grid-cell approach”).² 81 Fed. Reg. at 74,526-27; Modeling TSD at 2, 11, JA583-92. EPA selected the ten highest modeled ozone days in 2011 for that monitor, noted which grid cells showed the highest ozone concentrations on those ten days, and averaged those ten concentrations. Modeling TSD at 2-3, 13, JA583-84, 592. EPA then ran the model again for 2017 – using 2011 environmental conditions (including meteorological conditions, biogenic emissions, and fire emissions) but 2017 projected stationary and mobile source emissions – and calculated an average of the ozone concentrations on those same ten days in the same high-ozone grid cells. *Id.* at 13, JA594; *see also* Modeling Guidance at 102-03, JA244-45. Because both model runs held environmental conditions constant, a comparison of these modeling results showed how changes in emissions between 2011 and 2017 would translate into changes in ozone concentrations at each receptor. EPA then calculated the fractional change between the two average ozone concentrations generated above to get that

² As suggested by EPA guidance, EPA selected 2011 as base year for the model because conditions were conducive to ozone formation in that year and because it was the most recent, complete set of emissions information available for national-scale air quality modeling. 81 Fed. Reg. at 74,526; Modeling TSD at 2, 4-6, JA583, 585-87.

receptor's "relative response factor": a representation of the general sensitivity of ozone formation at that receptor to emission changes. Modeling TSD at 13, JA594.

Second, EPA projected receptors' attainment of the NAAQS in 2017 by applying this relative response factor to actual monitored data at each receptor. Attainment of the NAAQS is measured by considering a receptor's "design value," which is a three-year average of certain monitored ozone data for a given receptor. *See* 40 C.F.R. Pt. 50, App. P, 2.2-2.3. Here, EPA selected three design values across a five-year period centered around the 2011 base year (2009-2011, 2010-2012, and 2011-2013) to reflect a range of real-world environmental conditions. 81 Fed. Reg. at 74,532; Modeling TSD at 13, JA594. EPA then applied the receptor's relative response factor to each historical design value to project 2017 ozone concentrations under those conditions. Modeling TSD at 13-15, JA594-96. EPA identified as nonattainment receptors those receptors where the *average* of these three projected design values exceeded the 75 ppb NAAQS³ and where the most recent monitored design value (2013-2015) was also in nonattainment. A maintenance receptor was a receptor where the *highest* ozone concentration across these three scenarios – the maximum design value – exceeded the NAAQS, regardless of the recent monitored design value. 81 Fed. Reg. at 74,532.

³ EPA considers any value up to 75.9 ppb to be in attainment with the 75 ppb NAAQS (based on its "truncation" of fractional ppb). *See* 81 Fed. Reg. at 74,532, 74,551-52.

All told, EPA identified six nonattainment receptors in Connecticut, Texas, and Wisconsin, and thirteen maintenance receptors⁴ in Connecticut, Kentucky, Maryland, Michigan, New York, Ohio, Pennsylvania, and Texas. *Id.* at 74,533.

B. Step Two: Linking Upwind States to Downwind Receptors.

Once receptors were identified, EPA determined which upwind states sufficiently impact a downwind receptor such that they “contribute” to its air quality problems and are thus considered “linked.” *Id.* at 74,537; Modeling TSD at 15-21, JA596-602. To do so, EPA compared the state’s impact on each receptor to a contribution threshold set at 1% of the NAAQS – or 0.75 ppb. A state whose contribution met or exceeded this threshold at a given receptor was linked to that receptor and further evaluated in Step 3 to determine if its contribution is “significant” or would “interfere with maintenance.” *See EME Homer*, 134 S. Ct. at 1597; *North Carolina*, 531 F.3d at 914-16 (upholding EPA’s use of a contribution threshold to establish linkages under the Good Neighbor Provision). States with impacts below that threshold were considered “unlinked” and excluded from the Rule.

To evaluate upwind states’ impacts on downwind receptors, EPA used its air quality model to determine what percentage of ozone formed at a given receptor was

⁴ All nonattainment receptors are also projected to have difficulty maintaining the NAAQS in 2017, but this brief uses the phrase “maintenance receptors” to indicate those receptors that are *solely* maintenance receptors.

attributable to emissions from various categories of contributors. These categories include “boundary” emissions (emanating from outside the United States), emissions from forest fires, and anthropogenic emissions from individual states. For each category at each receptor, EPA assessed these emissions on an hourly basis across a multi-day average of high ozone days in order to generate a “relative contribution factor” – a metric that reflected, on average, the percentage of that receptor’s ozone attributable to that particular category on high-ozone days. *See* Modeling TSD at 17-19, JA598-600. This method produced a relative contribution factor for each upwind state at each receptor.

EPA then multiplied each upwind state’s relative contribution factor for each receptor by the projected average design value at that receptor in 2017 (calculated in Step 1). This yielded the state’s projected ozone impacts (in ppb) on the Rule’s identified nonattainment and maintenance receptors, *id.* at 19-21, JA600-02, which were compared to the 1% contribution threshold to identify linkages between upwind states and downwind receptors. 81 Fed. Reg. at 74,537.

EPA’s analysis concluded that 23 states and the District of Columbia were linked to the receptors identified at Step 1.⁵ *Id.* at 74,537. Fourteen states in EPA’s analysis were found to have no linkage to any downwind receptor. *Id.*

⁵ Delaware and the District of Columbia were excluded from the Rule at Step 3 given the absence of cost-effective NO_x reductions at in-state units. *Id.* at 74,553.

C. Step Three: Quantifying “Significant” Emission Reductions.

In Step 3, EPA determined which emissions from linked upwind states’ electric generating units constitute “significant” contributions to nonattainment or “interfere” with maintenance, and thus should be eliminated under the Good Neighbor Provision. EPA applied a multi-factor test to determine the appropriate level of control stringency under the Rule, assessing (1) the cost and availability of NO_x controls, (2) the emission reductions that could be achieved using those controls, and (3) the downwind air quality improvements that would result from those reductions. EPA then translated that level of control into specific state budgets. 81 Fed. Reg. at 74,539-40.

The methodology for calculating emission reductions has been the subject of significant judicial review dating back to this Court’s consideration in *Michigan*, where it affirmed that EPA could consider cost as a component of determining the amount of states’ emissions that would be considered “significant” contributions and upheld EPA’s use of a uniform level of control. 213 F.3d at 679-80. Since then, in *EME Homer*, the Supreme Court affirmed EPA’s two-part approach to defining “significant contribution,” used in the original CSAPR, whereby EPA first identifies linked states using a 1% contribution threshold at Step 2 and then – here at Step 3 – assesses control costs to identify the scope of a linked state’s control obligations. 134 S. Ct. at 1597, 1606-07. EPA applied that same “efficient and equitable” methodology, *see id.* at 1607, to set state budgets here. 81 Fed. Reg. at 74,540.

EPA began by considering possible levels of NO_x control stringency that could be applied to reduce upwind emissions. EPA surveyed the emission controls that could be applied to existing fossil fuel units and grouped these emission controls according to cost. *Id.* at 74,540-43. The result was five possible levels of control, ranging from a marginal cost of \$800/ton – representing the cost of optimizing existing selective catalytic reduction (“SCR”) emission control equipment – to a marginal cost of \$6,400/ton – representing the cost to install new selective non-catalytic reduction (“SNCR”) emission control equipment. *Id.* at 74,543.

In order to evaluate emission reductions available at each level of control, EPA first performed modeling with its Integrated Planning Model (“IPM”) to project “baseline case” power plant emissions in 2017 without any new emission controls. *Id.* at 74,521, 74,532. EPA then ran IPM again for each of the five possible levels of control, with the instruction that the model apply all possible emission controls up to that cost level. *Id.* at 74,540-42. This resulted in a set of “control cases” showing 2017 emissions after applying each selected cost-per-ton stringency level. *Id.* at 74,543, 74,548-49 (Tables VI.C-1-2).

EPA used the results to calculate emission budgets for each state at each potential level of control stringency. For each control scenario in each state, EPA used modeled baseline and control cases for 2017 to calculate a “relative-rate delta”: the *change* in each state’s emission rate between the baseline case and the selected control case. *Id.* at 74,547-48. EPA subtracted this relative-rate delta from each

state's *actual* 2015 emission rate,⁶ the most recent year of data. *Id.* The result was an emission rate grounded in historical data but reflecting the additional emission reduction potential identified by the modeling. This improved emission rate was then multiplied by the state's actual 2015 "heat input" (essentially, how much fuel the state's units burned to generate electricity) to get the state budget: the total tons of NO_x that would be emitted by units in the state under that control scenario. *Id.* at 74,548-49 (Tables VI.C-1-2).

EPA then used an air quality assessment tool to estimate the downwind air quality improvements that would result from the application of the state budgets at each of the five potential levels of control. Because the relationship between emission reductions and ozone improvement is not one-to-one, this was necessary to evaluate the air quality improvement that would actually be expected at each receptor.

As part of its air quality assessment, EPA also performed an over-control analysis, consistent with *EME Homer*, to evaluate whether the emission reductions achievable at any level of control stringency would go beyond any state's "significant contribution" to downwind air pollution. As *EME Homer* instructed, this analysis evaluated whether air quality improvements associated with the state budgets at each level of control stringency triggered either of two "over-control" conditions: (1)

⁶ The Rule refers to states' "adjusted" 2015 emission rate because EPA updated the 2015 emission rate data to reflect known fleet changes taking place *before* the Rule would go into effect – for example, to account for announced unit retirements occurring between 2015 and 2017. *Id.* at 74,547.

whether, for any state, all of its linked receptors reduced their ozone concentrations below the NAAQS; or (2) whether, for any state, its contribution to all of its linked receptors was reduced below the 1% contribution threshold. 134 S. Ct. at 1608-09. EPA found that neither was the case at the \$800/ton and \$1,400/ton control levels. *See* 81 Fed. Reg. at 74,551-52.

Weighing the cost of control, the attendant emission reductions, and the resulting air quality improvements – and checked by the over-control analysis – EPA concluded that a marginal cost of \$1,400/ton reflects a level of control that maximizes cost-effectiveness for purposes of this Rule. *Id.* at 74,508, 74,549-53. This is the level of control stringency where the incremental emission reductions and air quality improvement achieved per increment of additional cost are maximized – sometimes referred to as the “knee in the curve.” *Id.* at 74,550 (Figure VI.1). EPA concluded that its selection of \$1,400/ton appropriately “balance[d] the possibilities of under-control and over-control.” *EME Homer*, 134 S. Ct. at 1609; *see* 81 Fed. Reg. at 74,551-52.

D. Step Four: Implementing State Emission Budgets Through Allowance Trading Programs.

Finally, in line with its prior Good Neighbor programs, EPA implemented the budgets using a multi-state allowance trading program. Under that program, units in each covered state are allocated a share of allowances from that state’s budget, and must surrender (on March 1st of the following year) one allowance for every ton of

NO_x they emit during the annual ozone season. 81 Fed. Reg. at 74,568. The trading market allows units to emit more NO_x by acquiring additional allowances, or to profit from further reductions of NO_x by selling unneeded allowances. *Id.* at 74,554. Units may also bank allowances for future years, and the Rule permits some allowances banked during the original CSAPR to carry over for compliance with this Rule. *Id.* at 74,557.

The trading program is limited by each state's "assurance level," which is equal to each state's budget plus an additional 21 percent, to account for variability in electricity demand. *Id.* at 74,566. The assurance level ensures that each upwind state will limit its emissions and that individual receptors still see improvement under the Rule, consistent with *North Carolina*, 531 F.3d at 908, even as it affords individual units flexibility in choosing their compliance strategy. Any state's units may collectively exceed the state's budget without penalty so long as they stay under the assurance level. *Id.*

The state budgets were implemented by allocating the budgeted number of allowances among in-state units – although states are at liberty to alter the allocation methodology.⁷ *Id.* at 74,564-65. As in the original CSAPR, EPA's neutral allocation methodology relied on units' historical operational data. EPA set aside a small

⁷ Three states selected alternative allocation methods that are reflected in the Rule. *Id.* at 74,564.

portion of each state's allowances for new sources, *id.* at 74,565, with the remaining allowances allocated to the existing units in that state. *Id.* at 74,564-65.

Each existing unit was initially allocated a share of the state's budget in proportion to that unit's average share of the state's overall ozone-season heat input – with each unit's average heat input calculated by taking its ozone season heat input in the three highest years of the five most recent data years available, 2011-2015. *Id.* at 74,564-65; Allowance Allocation TSD at 7-8, EPA-HQ-OAR-2015-0500-0396, JA260-61 (“Allocation TSD”). Where a unit's initial allocation exceeded the maximum amount of ozone season NO_x it had actually emitted between 2008 and 2015, the unit's allocation was capped at its actual historical maximum with the excess allowances re-distributed among remaining units. 81 Fed. Reg. at 74,564; Allocation TSD at 8, JA261.

E. Feasibility Analysis.

Finally, EPA opted to perform a feasibility analysis that used conservative assumptions to independently confirm that the Rule was achievable. 81 Fed. Reg. at 74,561-63. That analysis considered only a limited number of control strategies – excluding other forms of emission reduction available for compliance (including, prominently, generation shifting). *Id.* Even with units constrained to these strategies, the feasibility analysis confirmed that collective emissions from the covered units could be up to 3% lower than the total budget. *Id.* at 74,562. For every state, the

feasibility analysis showed that emissions would stay below each state's "assurance level." *Id.* This analysis affirmed that the Rule is fully achievable.

V. Procedural Background

Petitioner Cedar Falls Utilities sought a stay of the CSAPR Update pending judicial review (Doc. 1689621), which EPA opposed (Doc. 1693271). A motions panel denied the requested stay on October 13, 2017. Doc. 1699127.

SUMMARY OF ARGUMENT

In promulgating the CSAPR Update, EPA acted consistently with its general obligation to implement Good Neighbor emission reductions as expeditiously as practicable to benefit affected downwind areas, while also ensuring that upwind states would not be required to reduce more emissions than necessary to address persistent downwind air quality concerns. The Rule strikes a reasonable balance between these obligations and accords with EPA's approach to implementing the Good Neighbor Provision that has been previously approved by the Supreme Court and this Court.

EPA gave due consideration to the upcoming 2018 attainment date and focused on NO_x emission reductions achievable during the relevant 2017 ozone season, acting quickly after the uncertainty from the *EME Homer* litigation was resolved. Contrary to Environmental Petitioners' and Delaware's assertions, this partial remedy is both lawful and entirely reasonable in light of the implementation delays flowing from the *EME Homer* litigation. EPA reasonably evaluated the feasibility of available emission reductions in establishing emission budgets, and made

a balanced choice to authorize limited conversion of banked allowances from the original CSAPR ozone season program. EPA explained how its conclusions were supported by technical information in the record and EPA's decades of experience implementing market-based allowance trading programs. EPA's expertise in these highly technical matters warrants substantial deference.

Delaware's backward-looking interpretation of the Good Neighbor Provision contravenes the statutory text and judicial precedent. EPA's modeling projected that each of Delaware's air quality areas would attain and maintain the 2008 ozone NAAQS by 2017, and Delaware does not meaningfully dispute that conclusion.

Industry and State Petitioners' arguments alleging that the Rule "over-controls" upwind emissions lack merit. The Rule essentially applies the same four-step framework of the original CSAPR, complying with Supreme Court and D.C. Circuit precedents upholding EPA's approach to determining emissions that "contribute significantly" to nonattainment or "interfere" with maintenance of the ozone NAAQS. Petitioners' attempts to re-cast challenges to that approach as assertions of impermissible over-control – where EPA clearly complied with the Supreme Court's over-control analysis – are thus unavailing. Moreover, the Rule's four-step methodology employed analyses that sought, where possible, to use actual measured data. EPA supplemented that data using well-established modeling tools where appropriate. Thus, the challenges of individual utilities to their states' budgets and unit allocations must fail. The fact that these utilities might have benefited from

another methodology does not undercut EPA's application of the lawful and equitable four-step CSAPR methodology and the highly technical determinations to which it is due substantial deference.

State Petitioners also repackage arguments already rejected by the Supreme Court and this Court in arguing that EPA must perform a formal cost-benefit analysis. EPA reasonably applied the same cost-effective approach to identifying upwind emission reductions previously affirmed by these Courts. EPA also reasonably evaluated costs and benefits in the Rule's Regulatory Impact Analysis.

The remaining State Petitioners' arguments are collateral challenges to other EPA actions. EPA's disapprovals of SIP submissions were separate agency actions not before this Court, and the States' suggestion that EPA deliberately and unlawfully delayed regulatory action is wholly unfounded. Wyoming's complaint about modeling that considered western states lacks merit as the Rule took no action in regard to western states. Finally, the States' attempt to dispute statements made in EPA's response brief defending the 2015 ozone NAAQS is irrelevant to the lawfulness of the CSAPR Update.

STANDARD OF REVIEW

The applicable standard of review is contained in 42 U.S.C. § 7607(d)(9), under which the court asks whether the challenged action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." This standard of review "is a narrow one," and the court is not "to substitute its judgment for that of

the agency.” *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971). The pertinent question is “whether the [agency’s] decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (citation omitted). Particular deference is given to an agency with regard to technical matters within its area of expertise. *Baltimore Gas & Elec. v. NRDC*, 462 U.S. 87, 103 (1983); *West Virginia v. EPA*, 362 F.3d 861, 867-68 (D.C. Cir. 2004).

Judicial deference also extends to an agency’s interpretation of a statute it administers. *Chevron*, 467 U.S. at 842-45. Under Chevron step one, if Congress has “directly spoken to the precise question at issue,” that intent must be given effect. *Id.* at 842-43. However, under Chevron’s second step, “if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” *Id.* at 843; *see also EME Homer*, 134 S. Ct. at 1603-04.

ARGUMENT

I. The CSAPR Update Does Not Improperly Under-Control Upwind Emissions.

Environmental Petitioners’ and Delaware’s arguments largely rest on the incorrect contention that the CAA mandates Good Neighbor emission reductions by a date certain. Nothing in the statute, however, establishes an inflexible schedule for such emission reductions. EPA does not dispute that it has an obligation to

implement Good Neighbor emission reductions as expeditiously as practicable to benefit affected downwind areas, considering applicable attainment dates. EPA complied with that obligation here. Given the unusual circumstances surrounding the 2011-2015 *EME Homer* litigation, EPA's expeditious efforts to implement cost-effective emission reductions that could be achieved during the 2017 ozone season, in time for the 2018 attainment date, was entirely reasonable.

A. The CSAPR Update Lawfully and Reasonably Targets 2017 Ozone Season Emission Reductions.

Environmental Petitioners and Delaware first argue that EPA acted contrary to a CAA statutory mandate identified by this Court in *North Carolina*, 531 F.3d at 911-12, by not prohibiting all upwind emissions that significantly contribute to downwind state nonattainment or interfere with maintenance by attainment dates in 2015, 2016, and 2018. They also fault EPA for not requiring all reductions “as expeditiously as practicable” within those timeframes, according to Petitioners' own view of what is practicable. Env. Br. 22-49. These arguments fail.

Neither the statutory text of the CAA nor *North Carolina* support Petitioners' attempt to create an unambiguous statutory mandate for inflexible emission reductions deadlines for upwind states. Contrary to Petitioners' contentions, 42 U.S.C. § 7410(a)(2)(D)(i) and § 7511, when read together, do not unambiguously require Good Neighbor emission reductions by a particular deadline. And in *North Carolina* this Court simply found that EPA must make an effort to “harmonize” its

upwind Good Neighbor reductions with downwind attainment dates. 531 F.3d at 911-12. EPA did exactly that here by quickly promulgating FIPs to achieve feasible upwind NO_x reductions during the 2017 ozone season, in advance of the 2018 downwind attainment date. Notably, the consequence of reading the statute as Petitioners suggest would be profound; emission reductions would be required even if such reductions could be achieved only with drastic upwind control measures. Nothing in the CAA or judicial precedents requires this result.

1. The statutory text does not support Environmental Petitioners' argument.

The Good Neighbor Provision does not set forth any timeframes. On its face, it is ambiguous as to when the upwind emission reductions it calls for must be in place. Further, while 42 U.S.C. § 7511(a) identifies timeframes for attaining ozone standards in downwind states, it does not specify deadlines for Good Neighbor emission reductions. Therefore, Congress has left a gap for EPA to fill. *Chevron*, 467 U.S. at 843. EPA's reasonable harmonizing of these provisions to require Good Neighbor emission reductions as expeditiously as practicable to benefit downwind areas, taking into account their attainment dates, as well as feasibility of how expeditiously upwind controls can be implemented, is entitled to deference

Petitioners rely on the phrase "consistent with the provisions of this subchapter" – i.e., CAA Title I – to import downwind attainment dates from 42 U.S.C. § 7511 into the upwind Good Neighbor Provision. Env. Br. 22-24, 27-35, 41-

49. This fails to unambiguously establish a statutory deadline for Good Neighbor emission reductions. Notably, Section 7511 itself *does not impose inflexible* deadlines for attainment. Petitioners point to the general timeframes in the section 7511(a)(1) table. But those timeframes may be (and often are) modified pursuant to other provisions in section 7511.⁸ For example, the six-year timeframe for attainment of the 2008 ozone NAAQS in moderate areas could be extended to 2020, pursuant to section 7511(a)(5). And pursuant to section 7511(b)(2), when downwind areas are unable to implement sufficient reductions via feasible control technologies by one attainment date, those areas will be “bumped up” in classification and given a new attainment date with additional time to attain. With “bump-ups” like this, the date for an area to attain the 2008 ozone NAAQS could be extended to 2021, 2027, and 2032, and each of these deadlines could be subject to further extensions of up to two years pursuant to section 7511(a)(5). *See also Whitman v. Am. Trucking Ass’ns, Inc.*, 531 U.S. 457, 493-94 (2001) (Breyer concurring) (considerations of costs and technological feasibility may affect deadlines selected by EPA). Thus, Environmental Petitioners’ premise that all upwind emission reductions must occur before the earliest downwind attainment date, feasible or not, is inconsistent with the framework of section 7511 as a whole.

⁸ The statutory text of 42 U.S.C. § 7511(a) does not itself establish the 2015, 2016, and 2018 attainment dates, and the 2016 deadline was an one-year regulatory extension of the 2015 marginal area attainment date issued pursuant to section 7511(a)(5), 81 Fed. Reg. 26,697 (May 4, 2016).

Moreover, the phrase “consistent with the provisions of this subchapter” is broad and imprecise. As the arguments presented by Industry and Environmental Petitioners highlight, tensions exist between various requirements of Title I. These are heightened in the context of regulating cross-state pollution. For instance, Industry Petitioners argue that pursuant to 42 U.S.C. § 7407, EPA should have shifted more of the burden to control ozone pollution in downwind states to those states. *See infra* Argument II.F. Environmental Petitioners, on the other hand, seek to shift more of the emission reduction burden to upwind states, citing section 7511(a)(1). *See generally* Env. Br. As EPA explained in response to comments, none of these individual CAA Title I provisions unambiguously require a substantial shift in Good Neighbor responsibilities; rather, EPA reasonably reads the Good Neighbor Provision and the gaps left in the statutory scheme by Congress to require an equitable allocation of responsibility between the upwind and downwind states that aligns with the *overall structure* of CAA Title I. *See, e.g.*, 81 Fed. Reg. at 74,515-16, 74,535-36; Response to Comments at 433-34, EPA-HQ-OAR-2015-0500-0572, JA542-43 (“RTC”); *cf.* S. Rep. No. 95-127, at 42 (1977) (the good neighbor provision is intended to “mak[e] a source at least as responsible for polluting another State as it would be for polluting its own State”).

The stringent deadlines that Environmental Petitioners seek to impose here are also inconsistent with the operable timeframe Congress allowed for EPA’s promulgation of Good Neighbor FIPs. Consider these timeframes: States have three

years to adopt SIPs that must include Good Neighbor emission reductions. 42 U.S.C. § 7410(a)(1). EPA has six months after that deadline to determine if a SIP meets certain minimum completeness criteria or if a state failed to make a submission entirely. *Id.* § 7410(k)(1)(B). Then EPA has a year to either approve a SIP as meeting the statutory requirements or disapprove an inadequate SIP submission. *Id.* § 7410(k)(2). A finding that a state has failed to make a required submission or a disapproval triggers a two-year period for EPA to promulgate a FIP. *Id.* § 7410(c)(1). Read together, these CAA provisions envision a process that could take over six years. In contrast, the attainment date for a nonattainment area classified as “marginal” is three years after the standard two-year designation period – a total of five years. *Id.* § 7407(d)(B)(i) (two years for designations) and § 7511(a)(1) (three year timeframes for marginal area attainment). In establishing a timeframe where EPA may not act until more than six years after a NAAQS is promulgated, Congress did not unambiguously express its intent that an EPA-promulgated FIP would have all necessary Good Neighbor emission reductions occur within the five-year timeframe for marginal areas to attain after the NAAQS is promulgated. *Chevron*, 467 at 843. And as exemplified by the extensive litigation that preceded the promulgation of the CSAPR Update, circumstances may make it impossible for EPA to promulgate FIPs to address all potential emission reductions within the timeframe for marginal and moderate attainment.

Environmental Petitioners' argument that section 7511(a)(1) imposes an additional requirement that upwind emission reductions be achieved "as expeditiously as practicable" within those timeframes, Env. Br. 31-39, is similarly flawed. EPA acknowledges that downwind areas must attain as expeditiously as practicable. However, as explained above, neither the text of 42 U.S.C. § 7410(a)(2)(D)(i) or § 7511, nor the structure of the CAA Title I, supports Petitioners' bootstrapping of this requirement with an inflexible deadline into the Good Neighbor Provision. Rather, EPA's approach to identifying emission reductions that are technologically feasible and cost-effective is entirely consistent with the requirements imposed on downwind nonattainment areas required to implement certain "reasonable" controls within the targeted timeframe. *See, e.g.*, 42 U.S.C. § 7502(c)(1), (2) (nonattainment implementation of reasonably available control measures and reasonable further progress); *id.* § 7511a(b)(1)(A) (reasonable further progress targets with exception when SIP includes "all measures that can feasibly be implemented in the area, in light of technological achievability").

2. This Court's precedent does not support Environmental Petitioners' statutory argument.

Because the text and structure of the CAA do not support Petitioners' theory, they stretch the reasoning and holding in this Court's decision in *North Carolina*. The *North Carolina* decision faulted EPA for not giving *any* consideration to upcoming attainment dates in downwind states when setting compliance deadlines for upwind

emissions; there, EPA had evaluated *only* the feasibility of implementing upwind controls. 531 F.3d at 911-12. But the Court did *not* hold that the CAA imposes strict deadlines for the implementation of Good Neighbor emission reductions. Nor did this Court opine that EPA would never be justified in setting compliance dates that post-date downwind attainment dates or consider the feasibility of implementing upwind emission reductions. Indeed, in remanding the rule, *North Carolina* acknowledged that upwind compliance dates may, in some circumstances, follow attainment dates. *Id.* at 930 (instructing EPA to “decide what date, whether 2015 or earlier, is as expeditious as practicable for states to eliminate their significant contributions to downwind nonattainment”).

Nor does *NRDC v. EPA*, 777 F.3d 456, 468 (D.C. Cir. 2014), stand for the proposition that EPA should ignore the feasibility of implementing emission reductions when it promulgates Good Neighbor FIPs, or that such emission reductions are strictly required to be in place by a date certain, *contra* Env. Br. 27-30. There, EPA had set 2008 ozone standard attainment dates in December 2015 so that downwind states could use data from the 2015 ozone season to demonstrate attainment. *NRDC*, 777 F.3d at 465. The *NRDC* court simply held that the statutory gap in 42 U.S.C. § 7511(a)(1) did not allow EPA this type of flexibility. The Court’s holding in *NRDC* did not speak to state planning or implementation requirements that apply for areas subject to those dates. *NRDC* is therefore inapposite as to how

the Good Neighbor Provision should be harmonized with CAA statutory or regulatory dates for downwind states.

3. EPA lawfully promulgated a Good Neighbor remedy that addressed 2017 achievable emission reductions.

Consistent with *North Carolina*, and the statutory gaps left in the CAA by Congress, the Rule reasonably harmonizes upwind emission reduction requirements with downwind attainment dates. Indeed, EPA based the Rule on the upcoming 2018 attainment date, examining available emission reductions that could be achieved by upwind states in the 2017 ozone season. For instance, EPA looked at the possibility of additional emission reductions at electrical generating units (such as new SCR and SNCR controls) and controls for NO_x-emitting sources that are not electrical generating units (“non-EGUs”), but EPA determined that neither could be implemented by 2017, 81 Fed. Reg. at 74,540-42, a conclusion Petitioners do not challenge. EPA also determined that any attempt to quantify a second phase of emission reductions in a later year would require significantly more work, delay the rulemaking, and impede the ability to implement the 2017 reductions. *Id.* at 74,522-23; RTC at 602-03, JA577-78. Therefore, EPA determined that promulgating a first phase of emission reductions achievable in upwind states by 2017 was more consistent with *North Carolina* than delaying final action (which would have delayed implementation of emission reductions beyond the moderate area attainment date).

Id.; *see also* RTC at 347, JA541 (rejecting suggestion that upwind states should have additional time to implement emission reductions).

Moreover, to the extent the CSAPR Update may only partially address Good Neighbor requirements for the 2008 ozone NAAQS, this Court has held on several occasions that agencies have the authority to tackle problems in an incremental fashion. *See, e.g., Grand Canyon Air Tour Coal. v. FAA*, 154 F.3d 455, 478 (D.C. Cir. 1998); *City of Las Vegas v. Lujan*, 891 F.2d 927, 935 (D.C. Cir. 1989). The circumstances here are especially similar to the action challenged in *Grand Canyon*, 154 F.3d at 478. There, a statute required a Federal Aviation Administration (“FAA”) plan to reduce air-traffic noise and “restor[e] the natural quiet” to the Grand Canyon within two years. *Id.* at 460-61. After ten years, the FAA promulgated a rule acknowledged as insufficient, but that would prevent worsening conditions while the FAA worked on next administrative steps for approximately 10 more years. *Id.* at 463, 476-77. In a challenge to the FAA rule as statutorily insufficient, the Court noted the “congressional concern with expeditious agency action,” but held that the rule did not violate Congress’s intent because the FAA still intended to restore natural quiet and had “never defended the [rule] as the sole means for [doing so].” *Id.* at 476-77

(citing *Las Vegas*, 891 F.2d at 935 (courts will not strike down agency actions that “[are] a first step toward a complete solution”)).⁹

EPA was similarly concerned in the CSAPR Update about acting expeditiously in light of the delays caused by the *EME Homer* litigation. EPA acknowledged that the Rule “may not be sufficient to fully address [] states’ good neighbor obligations” but “the agency does not have sufficient information at this time to promulgate [a rule governing non-EGUs]. . . . [and it is] beneficial to implement, without further delay, EGU NO_x reductions that are achievable in the near term.” 81 Fed. Reg. at 74,521-22. In taking this step-wise action, EPA has appropriately articulated its intention to take further steps toward compliance, if further analysis demonstrates additional reductions are necessary. *Id.* at 74,522 (“EPA intends to continue to collect information and undertake analyses for potential future emission reductions at non-EGUs that may be necessary to fully quantify states’ interstate transport obligations in a future action.”). This incremental approach to addressing Good Neighbor emission

⁹ Petitioners argue that *Center for Biological Diversity v. EPA*, 722 F.3d 401 (D.C. Cir. 2013), and Petitioners’ asserted “statutory mandate” foreclose application of *Grand Canyon* here. The panel in *Center for Biological Diversity*, however, split 1-1-1 on how *Grand Canyon* should be applied, and only Judge Kavanaugh’s concurrence would have held the “one-step-at-a-time” doctrine inapplicable where there is a “clear statutory mandate.” 722 F.3d at 409, 413, 416. As explained *supra* in Argument I.A.1, there is no CAA statutory mandate to have Good Neighbor emission reductions fully in place before the earliest attainment dates, as Petitioners contend. Indeed, the clearly-defined timeframes at issue in *Grand Canyon* present a sharp contrast to the lack of any such timeframes in the Good Neighbor Provision.

reductions for the 2008 ozone NAAQS was reasonable given the short-timeframe before the 2018 attainment date, and *North Carolina's* direction that EPA should strive to harmonize implementation of emission reductions with relevant attainment dates.¹⁰

Finally, Petitioners incorrectly suggest that EPA has already concluded that these states continue to significantly contribute to nonattainment and interfere with maintenance of the NAAQS in downwind states, even after implementation of the CSAPR Update. Env. Br. 10, 23. EPA cannot conclude that the CSAPR Update emission reductions do (or do not) satisfy upwind states' Good Neighbor obligations without additional analysis. Although EPA's modeling showed that downwind air quality problems would likely remain after implementation of the CSAPR Update in 2017, the modeling reflects EPA's best information at that time; additional analysis with more recent data may demonstrate that some or all states have fully addressed the Good Neighbor Provision in a future compliance year or that upwind states have eliminated all significant contributions.

In sum, the Good Neighbor Provision is ambiguous as to the timing of upwind reductions and section 7511's downwind attainment timeframes are not so inflexible as Petitioners claim. EPA's reasonable efforts to harmonize these provisions, while

¹⁰ An order entered in *Sierra Club v. EPA*, Case 3:15-cv-04328 (N.D. Cal.), Doc. 73, requires EPA action regarding remaining Good Neighbor obligations for the state of Kentucky by June 30, 2018. To the extent Petitioners assert that EPA has additional obligations pursuant to the Good Neighbor Provision, whether promulgation of a FIP, action on a SIP, or some other final agency action, any such claims must be presented in district court pursuant to 42 U.S.C. § 7604.

paying due regard to this Court's instructions in *North Carolina* that downwind nonattainment should be a factor in that effort, should be preserved.

4. Petitioners' 2015 and 2016 deadline arguments have been waived.

Petitioners suggest in their brief for the first time that the CSAPR Update should have addressed attainment dates in 2015 and 2016. Env. Br. 25. These arguments have been waived because they were not raised in comments. 42 U.S.C. § 7607(d)(7)(B) (“Only an objection to a rule ... raised with reasonable specificity during the period for public comment ... may be raised during judicial review.”); *Nat'l Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1231 (D.C. Cir. 2007). The proposed rule was published on December 3, 2015, and EPA accepted comments on the proposal through February 1, 2016. 80 Fed. Reg. 81,251 (Dec. 29, 2015). Despite a seemingly obvious timing issue, no commenter raised concerns that the finalized rule would not have Good Neighbor emission reductions in place before 2015 or 2016 attainment dates. Insofar as these Petitioners now seek to argue that EPA was required to have such emission reductions in effect before the 2015 or 2016 attainment dates, those arguments have been waived.

B. EPA Used Appropriate Methodologies and Reasonable Assumptions in Promulgating FIPs to Address 2017 Ozone Season NO_x.

1. EPA's modeling assumptions regarding optimization of NO_x pollution controls and re-dispatch of electricity generation were reasonable.

Environmental Petitioners contend that EPA could have achieved greater emission reductions in calculating state emission budgets if EPA's modeling had incorporated different assumptions regarding the rate of NO_x emissions from optimized emission controls, Env. Br. 32-34, and generation-shifting potential between units, *id.* 34-36. EPA addressed each of these assertions in the record, and EPA's highly-technical determinations warrant deference.

As part of its budget-setting process, EPA assumed that turning on and optimizing idled SCR controls could achieve a NO_x emission rate of 0.10 lbs/mmBtu. 81 Fed. Reg. at 74,543-44; EGU NO_x Mitigation Strategies TSD at 5-6, EPA-HQ-OAR-2015-0500-0554, JA395-96 ("Mitigation TSD"). Environmental Petitioners dispute EPA's decision regarding that value, arguing that individual plants have achieved rates lower than 0.065 lbs/mmBtu and that EPA "failed to provide any reasoned explanation" for the chosen rate. To the contrary, EPA responded to comments on this figure and explained its reasoning at length in the final Rule.

EPA acknowledged that greater optimization (and thus additional emission reductions) could be possible on a unit-specific basis, but found that the 0.10 lbs/mmBtu rate "reflects a generally achievable NO_x emission rate that is appropriate

for the EPA's budget-setting purposes.” 81 Fed. Reg. at 74,544. EPA explained that it was not choosing the lower rate of 0.075 lbs/mmBtu, as it had initially proposed, because 0.10 lbs/mmBtu appeared to better represent what would be achievable for older SCR units on a fleet-wide basis over the course of an entire ozone season. *Id.* at 74,543-44; *see also* RTC at 502-03, JA570-71; Mitigation TSD at 5-6, JA395-96. EPA relied on data indicating that lower NO_x rates “may reflect new SCR systems that have all new components (e.g., new layers of catalyst)” and that “[d]ata from these new systems are not representative of ongoing achievable NO_x rates considering broken-in components and routine maintenance schedules.” 81 Fed. Reg. at 74,543. EPA therefore chose to look at a more recent timeframe than it did at proposal and use the third-lowest fleet-wide average rate, rather than the second- or first-lowest rate. *Id.*; Mitigation TSD at 6, JA396.¹¹ Further, recognizing that some units can achieve lower rates, EPA used the 0.10 rate as a ceiling only, and where data were available, assigned units their historical rate if lower. Mitigation TSD at 5 n.6, JA395. Petitioners' contentions that EPA arbitrarily chose the 0.10 lbs/mmBtu rate and failed to explain its rationale simply do not reflect the agency's well-developed record.

EPA also adequately explained why its model parameters limited generation-shifting to units within the same state, *contra* Env. Br. 34-36. Recognizing the

¹¹ Petitioners misinterpret EPA's description of its methodology as including units with non-operational or poorly operated SCR in the fleet-wide average. Env. Br. 13, 33. EPA noted in the rulemaking that the third-lowest rate “represents efficient but routine SCR operation.” *See* Mitigation TSD at 5, JA395.

complexity of “broader, interstate generation-shifting,” and as a proxy for the more limited potential to shift generation in the near-term (i.e., in 2017), EPA constrained its model to include only intra-state generation-shifting in calculating the state emission budgets. 81 Fed. Reg. at 74,544-45; *see also* Mitigation TSD at 12, JA402; RTC at 530, 532, JA574, 576. As EPA explained, the use of this proxy was reasonable in light of the “near-term compliance timeframe” and was supported by EPA’s sensitivity analyses. RTC at 532, JA576; *see also* Ozone Transport Policy Analysis TSD at 17, EPA-HQ-OAR-2015-0500-0555, JA425 (“Ozone TSD”); *id.*, App. F, JA456-58 (showing a limited impact of the in-state restriction on the final state budgets).

Petitioners incorrectly assert that EPA failed to address their comments about generation-shifting potential. Env. Br. 14, 34. Petitioners’ preferred approach would have assigned a certain amount of generation-shifting to each state based on a simple calculation of the capacity available to be shifted, without regard to a particular cost threshold. Conservation Group Comments, App. 1, tab “Methodology,” EPA-HQ-OAR-2015-0500-0287, JA1031-32. But EPA’s approach for identifying highly cost-effective emission strategies in previous Good Neighbor rulemakings has been affirmed by the Supreme Court and this Court, and nothing in the Act or the Courts’ decisions suggests Petitioners’ preferred approach on this technical matter is required. EPA explained how its approach used modeling to take account of the amount of generation-shifting that would occur on an economic basis depending on the cost threshold applied. *See* RTC at 528, JA572. Notwithstanding Petitioners’

characterization of the amount of generation-shifting they advocate as “easily achievable,” Env. Br. 35, they did not provide information to show that it would occur at the \$1,400/ton cost threshold EPA selected in the Rule.

Petitioners’ assertion, Env. Br. 35-36, that EPA failed to consider potential generation-shifting among coal units is factually incorrect. No constraint was imposed in the model to prevent shifts among plants based on fuel type. *See e.g.*, Mitigation TSD at 11 (“Similarly, generation could shift from uncontrolled coal to coal units that have SCR”), 13 (Table 3) (showing modeled generation-shifting at coal units), JA401, 402.

In sum, EPA considered and reasonably responded to Environmental Petitioners’ contentions regarding the assumptions used in setting state emission budgets, and the Court should defer to EPA on these technical matters. *See Baltimore Gas*, 462 U.S. at 103 (utmost deference to agencies’ technical determinations).

2. The limited conversion of banked CSAPR allowances was reasonable.

The final step of the Rule’s framework is implementation, and like the original CSAPR, the Rule uses allowance trading programs to implement the necessary emission reductions represented in the emission budgets. As in prior programs, allowances can be banked and traded by the regulated units, encouraging efficient pollution reduction. In this Rule, however, EPA applied a conversion ratio to existing banked allowances to mitigate their impact. This treatment of allowances banked

during the original CSAPR allowance trading program reflects a balanced approach to ensuring appropriate market function and continuing incentives to achieve earlier emission reductions.

Environmental Petitioners argue that EPA arbitrarily and unlawfully allowed the conversion and rollover of some banked CSAPR allowances for use under the CSAPR Update allowance trading program. Env. Br. 36-40. These arguments misconceive the role of banking in market-based programs generally and ignore EPA's balanced approach to banking through the use of a conversion ratio here.

First, Petitioners' argument presumes incorrectly that the banking of allowances undermines the pollution control benefits of a market-based regulatory program. EPA's experience with market-based pollution programs shows the opposite. "A key feature of allowance trading programs is that they provide sources an economically efficient strategy for integrating current and future compliance." 81 Fed. Reg. at 74,561. EPA has been operating market-based pollution regulatory programs for over 25 years and has observed that banking of allowances has the effect of incentivizing "early emission reductions, which often result in improved air quality earlier than otherwise required." *Id.* EPA's past market-based regulatory programs, such as the NO_x SIP Call and CAIR, which also authorized banking, have resulted in significant improvements in attainment of the ozone and fine particulate matter standards. *Id.* at 74,514. Thus, EPA concluded that banking of excess emission reductions is a "positive element of a trading-based program" that "encourages early reductions,

provides certainty, and creates flexibility in order to achieve the public health goal more cost-effectively and reliably.” *Id.* at 74,559.

Second, Petitioners’ characterization of the number of banked allowances as “swamping” the reduction potential of the CSAPR Update, Env. Br. 37-38, takes EPA’s statements out of context. While EPA recognized that *without* a conversion ratio, the number of CSAPR banked allowances *could* result in excessive emissions, 81 Fed. Reg. at 74,558, EPA did not authorize unmitigated use of allowances banked from the prior program here. EPA appropriately applied a conversion ratio to the total banked allowances (roughly 3.5-to-1), resulting in a significant decrease in the number of banked allowances that would be rolled over for use in the CSAPR Update allowance trading program. *See id.* at 74,557-59. Petitioners’ argument also ignores the penalties imposed if emissions exceed the states’ assurance levels – even if units have allowances to cover those emissions – which restrains over-reliance on banked allowances. *Id.*

Petitioners’ view that use of previously banked allowances should be prohibited because this Rule addresses the 2008 ozone NAAQS while the original CSAPR addressed the less stringent 1997 ozone NAAQS, Env. Br. 39-40, is not compelled by the statute, nor does it account for the valid policy concerns that informed EPA’s choice, *see* 81 Fed. Reg. at 74,557-59; *see also* 42 U.S.C. § 7410(a)(2)(A) (authorizing market-based approaches). Both this Rule and earlier NO_x ozone season trading programs implement the same strategy to achieve NO_x reductions through a market-

based approach. Within that approach, it is reasonable to maintain continuity in the banking of allowances, which incentivizes reductions earlier, *id.* at 74,559 – an environmentally beneficial objective that is shared across ozone seasons and different ozone NAAQS.

EPA's rationale is not undermined by its conclusion that the banked allowances are not necessary for compliance. *See id.* Based on EPA's experience administering other market-based regulatory programs, EPA reasonably concluded that carrying over some allowances would ensure market liquidity, consistency, and certainty. *Id.* at 74,557-59; *see also* RTC at 116, JA487. Had EPA completely devalued the banked CSAPR allowances, units might be incentivized to use up their banked allowances in the final days of the 2016 season or cease making earlier reductions going forward due to lost confidence in future use of banked allowances. RTC at 197, JA514. In short, EPA explained that the conversion of banked allowances was a balanced approach toward achieving optimum environmental benefits within a market-based program. Petitioners do not meaningfully dispute EPA's rationale for those benefits. The Court should defer to EPA's expertise and experience in this technical matter. *See Baltimore Gas*, 462 U.S. at 103.

C. EPA Reasonably Determined That Delaware Does Not Contain Nonattainment or Maintenance Receptors Under the Good Neighbor Provision.

Delaware challenges EPA's determination at Step 1 that Delaware does not contain downwind nonattainment or maintenance receptors that require Good

Neighbor emission reductions, Env. Br. 40-49. Delaware argues that EPA should have determined which areas of the country face nonattainment or maintenance problems sufficient to trigger Good Neighbor obligations based on air quality and emissions data at the time of the original deadline for state plans (2011). Delaware's position is untenable in the face of the statutory text and decisions from the Supreme Court and this Court, all of which support EPA's identification of downwind receptors based on future year projections.

To clarify any confusion raised by Delaware's arguments, we first present some basic facts about Delaware's air quality areas. Delaware contains three counties, each of which is part of a different air quality area: Kent County, Sussex County, and New Castle County. Based on air quality monitoring data from 2008-2010, one county was designated attainment/unclassifiable for the 2008 ozone NAAQS (i.e., the area was meeting the standard) – Kent County; and two were designated and classified as marginal nonattainment – Sussex County (as the Seaford nonattainment area) and New Castle County (which comprises part of the four-state nonattainment area of Philadelphia-Wilmington-Atlantic City). 77 Fed. Reg. 30,088 (May 21, 2012).¹²

¹² Delaware seeks to present argument about current conditions through an extra-record declaration. Env. Br at 48. Since this is a record review case, the Court should not consider information that was not before the agency at the time of its decision. *See Fla. Power & Light v. Lorion*, 470 U.S. 729, 743-44 (1985). If the Court were to consider extra-record information, that information indicates that all areas in Delaware timely attained the 2008 ozone NAAQS, 81 Fed. Reg. 26,697 (May 4, 2016); 82 Fed. Reg. 50,814 (Nov. 2, 2017), and that to the extent there are more recent

(Footnote Continued...)

In the Rule, EPA determined at Step 1 that no air quality monitors in Delaware were likely to face nonattainment or maintenance problems in 2017 because the projected ozone levels (both average and maximum) were below 76.0 ppb. *Compare* 81 Fed. Reg. at 74,533 (listing nonattainment and maintenance receptors with projected ozone levels equal or greater than 76.0 ppb) *with* Final CSAPR Update Design Values and Contributions spreadsheet, rows 242-247, columns G and H, EPA-HQ-OAR-2015-0500-0459, JA270-71 (“Ozone Level Spreadsheet”) (listing Delaware’s projected ozone levels, both average and maximum, below 76.0 ppb). Delaware does not contend that EPA made any mathematical errors in calculating these values.

Delaware’s primary argument instead is that EPA should have looked back in time to 2011 (the statutory deadline for Good Neighbor SIPs), determined what air quality problems existed at that time and which states were contributing to those problems, and required future reductions from upwind states based on that old contribution data. Env. Br. 41-44, 45 n.15. Delaware contends that its approach would more closely align with the Act’s timeframes and that EPA’s analysis of air quality in a future projected year “punishes” downwind states and “unlawfully relieves” upwind states. *Id.* 44.

violations of the standard in the four-state Philadelphia area, the air quality monitors in Delaware are measuring below the NAAQS, *see* 2016 Ozone Design Values Spreadsheet, Table 5, rows 310-313, col. L, JA1416, also available at: <https://www.epa.gov/air-trends/air-quality-design-values#report>.

Delaware's proposition is inconsistent with the Good Neighbor Provision, 42 U.S.C. § 7410(a)(2)(D)(i)(I), which requires states to prohibit emissions "which *will* contribute significantly to nonattainment or interfere with maintenance" (emphasis added). In keeping with Congress's use of the future tense in the phrase "will contribute... or interfere," in the NO_x SIP Call, CAIR, CSAPR and the CSAPR Update, EPA has consistently implemented the Good Neighbor Provision by modeling a *future* year to identify downwind air quality problems. This Court explicitly upheld this forward-looking approach in *North Carolina*. 531 F.3d at 913-914 (rejecting argument that EPA should include upwind states where linked monitors were projected to be clean in the future).

EPA's interpretation is further affirmed by the Supreme Court's and this Court's *EME Homer* decisions. The Supreme Court explained that, under the Good Neighbor Provision, "EPA cannot require a State to reduce its output of pollution by more than is necessary to achieve attainment in every downwind State." 134 S. Ct. at 1608. This Court put a further gloss on the bounds of EPA's Good Neighbor authority, holding that where record data shows that downwind receptors would comply in the future with the standard absent any emission reductions, EPA does not have authority to impose reductions in that future year. *EME Homer II*, 795 F.3d at 129-30.

As explained above, EPA targeted 2017 because it was mindful of obtaining emission reductions as quickly as possible in time for the 2018 attainment date after

the *EME Homer* litigation was resolved. In response to comments from Delaware and others, EPA explained that it needed to evaluate *future* air quality in order to determine, on the one hand, what emission reductions “will” impact attainment and maintenance of the standard, and on the other hand, what reductions would be over-control. *See* RTC at 17-18, JA478-79. EPA explained that the retroactive emission reductions requested by Delaware were not a reasonable interpretation of EPA’s duties under the statute, and that determining obligations based on historic conditions to compensate states like Delaware for perceived past inequities would require that EPA arbitrarily ignore changed emissions activity. *Id.*

Contrary to Delaware’s arguments, Env. Br. 43, it will receive benefits from the Rule, even though none of Delaware’s receptors were projected to struggle to attain or maintain the 2008 ozone NAAQS. For example, the Philadelphia, Pennsylvania receptor and Delaware’s air quality monitors in New Castle County are located in the same nonattainment area, and the Philadelphia receptor was determined to be a maintenance-only receptor in the CSAPR Update. Nine of the ten states that Delaware asserts are upwind contributors to Delaware, Env. Br. 42, are required to reduce emissions under the CSAPR Update due to linkages with Philadelphia and other receptors. 81 Fed. Reg. at 74,538-39 (Table V.E-3). Because EPA calculates emission reduction obligations based in part on cost-effective reductions available at a uniform level of control stringency, the reduction obligation from those nine states is

exactly what it would have been if Delaware's monitors were identified as problem receptors in the Rule.

Delaware's attempts to dispute the reliability of EPA's modeling techniques, Env. Br. 45-49, are similarly unavailing. Delaware asserts that EPA arbitrarily relied on one year of data to determine which States would be subject to the Rule. *Id.* 46. This fundamentally mischaracterizes EPA's methodology. EPA used 5-year weighted averages (calculated with monitored design values from 2009-2011, 2010-2012, and 2011-2013) to compute average and maximum projected design values for the year 2017. 81 Fed. Reg. at 74,532; *see also supra* Background IV.A. Based on this robust data set, EPA concluded that all such values for Delaware were below the NAAQS. Ozone Level Spreadsheet, rows 242-247, columns G and H (all below 72 ppb). EPA reasonably relied on modeling that incorporated multiple years of data to conclude that air quality at the Delaware monitors was expected to both attain and maintain the 2008 ozone NAAQS in 2017.

Delaware's concern about a lack of "permanent and enforceable" reductions for purposes of redesignation, Env. Br. 48, also lacks merit. As explained above, Delaware will receive collateral emission reduction benefits under the CSAPR Update. EPA has redesignated numerous nonattainment areas based in part on "permanent and enforceable" emission reductions attributable to allowance trading programs like CSAPR, and EPA's conclusion that such emission reductions are "permanent and enforceable" for the purposes of redesignation under 42 U.S.C. § 7502 has been

affirmed by multiple courts of appeals. *See Sierra Club v. EPA*, 793 F.3d 656, 665-68 (6th Cir. 2015); *Sierra Club v. EPA*, 774 F.3d 383, 393-99 (7th Cir. 2014). Given appropriate supportive data, Delaware would be able to rely on CSAPR Update emission reductions in upwind states in seeking redesignation of a Delaware area. Delaware appears to conflate unrelated issues of variability in EPA's modeling parameters with the development of maintenance plans for redesignation. Env. Br. 46-48. Counter to Delaware's suggestion, Delaware would have no need to rely on the air quality modeling performed for the CSAPR Update in seeking redesignation of its nonattainment areas under 42 U.S.C. § 7407(d)(3)(E). Moreover, to the extent that Delaware seeks to dispute EPA's assessment of market forces and weather conditions in the air quality modeling, Delaware has failed to identify any alleged error. It is entirely reasonable that EPA's air quality modeling incorporates expected market forces and variable weather conditions given that the purpose of the CSAPR Update modeling is to accurately predict air quality in a future year, and those are crucial factors affecting ozone levels. 81 Fed. Reg. at 74,513-14.

II. The CSAPR Update Does Not Over-Control Upwind Emissions.

State and Industry Petitioners make numerous claims, but they fail to show that EPA arbitrarily, capriciously, or unlawfully designed the CSAPR Update in a manner that resulted in "over-control" of upwind emissions. Nor can they: much of EPA's underlying methodology has already been considered by this Court and the Supreme Court to constitute a reasonable (or in some cases necessary) reading of the Good

Neighbor Provision. The Supreme Court’s concern about “over-control,” meanwhile, was specific to the question of whether EPA was requiring emission reductions from upwind states that exceeded the point at which their emissions were reduced below the 1% contribution threshold at all of their linked receptors or the point at which all of the air quality problems at their linked receptors were resolved. EPA’s over-control analysis demonstrates that no states were pushed beyond these limits, so no “over-control” concern – as defined by the Supreme Court – remains. Petitioners thus fail to establish that the Rule falls outside of the permissible bounds set by the Supreme Court. In any event, the CSAPR Update reasonably applied the four-step framework already authorized by this Court and the Supreme Court and does not impose unreasonable requirements or unreasonably stringent limitations on states or their electric generating units. As such, it must be upheld.

A. EPA’s Use of Modeled and Monitored Data in Identifying Receptors Was Reasonable.

Petitioners allege that EPA’s methodology for identifying receptors was unlawful because the Rule departed from EPA’s practice in CAIR and the NO_x SIP Call of “check[ing] air-quality-modeling results against real-world data.” Indus. Br. 8; *see* State Br. 23-24. According to Petitioners, EPA impermissibly regulated receptors “whose monitored data showed attainment” but where EPA’s air quality modeling projected that the receptor could violate the NAAQS in the future. Indus. Br. 12. In such cases, Petitioners claim, monitored data should have trumped EPA’s modeling

to exclude those receptors from the Rule. *Id.* Petitioners' reading is at odds with this Court's precedents, and with EPA's reasonable and technically-supported interpretation of the Good Neighbor Provision's maintenance prong.

First, EPA *did* consider monitored data and, in fact, identified receptors subject to the Rule on the basis of such real-world data to the fullest extent possible.

Monitored data from 2009-2013 was used to establish EPA's Step 1 baseline for ozone concentrations. 81 Fed. Reg. at 74,532. To identify problem receptors, EPA applied its "relative response factor" directly to this historical baseline, with the relative response factor serving to adjust the actual monitored data to show ozone concentrations that would result if the same real-world conditions recurred in 2017.

Id.; see *supra* Background IV.A. And, as Petitioners acknowledge, the most current monitored data – from 2013-2015 – formed the basis for EPA's decision to re-categorize nonattainment receptors to maintenance receptors where current monitored data showed that the receptor was currently attaining the NAAQS. See *Indus. Br. 11*; 81 Fed. Reg. at 74,532.¹³

Petitioners' complaint is thus not that EPA failed to consider monitored ozone data. Rather, Petitioners challenge EPA's conclusion that receptors whose most current data showed they are attaining the NAAQS may nonetheless fall within the

¹³ Petitioners' contention that this had no practical import because both kinds of receptors were subject to the same control stringency is addressed *infra* in Argument II.G.

scope of this Rule. *See* Indus. Br. 11-12, 13. Petitioners' argument is in direct opposition to this Court's holding in *North Carolina* and its affirmation of that holding in *EME Homer II*.

In *North Carolina*, this Court reviewed the CSAPR predecessor rule, CAIR. CAIR addressed upwind contributions to nonattainment receptors, defined as receptors where both modeling and current monitored data showed nonattainment with the NAAQS. *North Carolina*, 531 F.3d at 908. EPA interpreted the Act's "maintenance" prong to only require continued reductions to ensure that none of the nonattainment receptors reaching attainment would fall back out. *Id.* at 909. North Carolina argued that this interpretation of the Good Neighbor Provision failed to give "independent effect" to its maintenance prong and afforded no protections to areas presently in attainment but projected to have difficulty attaining in the future. *Id.* at 908. The Court sided with North Carolina, holding that EPA was required to separately "identify upwind states that interfere with downwind maintenance," and noting its particular concern that areas "barely meeting attainment" under the rule lacked "recourse." *Id.* at 910.

Since then, EPA has separately defined "maintenance" receptors to include areas expected to meet the NAAQS but that may violate them under certain environmental conditions – a possibility that arises *whether or not* those receptors are currently violating the standard. "Unlike nonattainment receptors," EPA explained here, "current clean monitored data does not disqualify a receptor from being

identified as a maintenance receptor because the possibility of failing to maintain the NAAQS in the future, even in the face of current attainment of the NAAQS, is exactly what the maintenance prong of the good neighbor provision is designed to guard against.” 81 Fed. Reg. at 74,531.

Petitioners challenge this basic proposition. They claim that “it was arbitrary for EPA to deem receptors with current monitored attainment to be ‘problem receptors’ under the Rule.” Indus. Br. 13. In other words, EPA should have limited the identified receptors under the Rule to those with current data showing nonattainment. Petitioners do not and cannot explain how this differs from the interpretation advanced in CAIR and rejected in *North Carolina*. In fact, Petitioners cite CAIR and the preceding NO_x SIP Call as supporting their argument. Indus. Br. 8-9, 13. Like CAIR, Petitioners’ proposal would identify only receptors that were presently in nonattainment. *See* 70 Fed. Reg. at 25,244. Like CAIR, Petitioners’ approach would consider the “maintenance” prong only with respect to those same nonattainment receptors. *See North Carolina*, 531 F.3d at 910. And like CAIR, Petitioners’ proposal would afford no “recourse” to areas currently monitored as in attainment but projected to violate the NAAQS under certain conditions in the future. *See id.* Petitioners’ argument that EPA failed to adequately “check air-quality-modeling results against real-world data,” Indus. Br. 8, is thus an attack on the “independent significance” given to maintenance receptors under the Rule. So like CAIR, the Court must reject Petitioners’ argument.

Petitioners further fail to distinguish this Court’s ruling in *EME Homer II*, which already concluded that EPA’s approach to maintenance receptors comports with the statute and with the Court’s holding in *North Carolina*. 795 F.3d at 136. Petitioners claim that EPA cannot rely on its approach in the original CSAPR – upheld in *EME Homer II* – because there the Agency could not consider monitored data that reflected CAIR’s implementation. Indus. Br. 10. But again, Petitioners miss the mark. As the Supreme Court and this Court have explained, giving full effect to the maintenance prong of the Good Neighbor Provision requires EPA to “reduce” emissions from upwind states sufficient to ensure that “an already-attaining State . . . maintain[s] satisfactory air quality.” *EME Homer*, 134 S. Ct. at 1604 n.18; *EME Homer II*, 795 F.3d at 136-37. Monitored data showing that a receptor is presently in attainment does not answer the question of whether that “already-attaining” state will maintain attainment; for that, EPA must model future attainment irrespective of what monitored data presently shows. EPA’s methodology for doing so was upheld in *EME Homer II* so, again, Petitioners’ arguments must be rejected.

Even putting aside these fatal defects, there is no merit in Petitioners’ contention that EPA’s “multiyear-average form of measuring an area’s ozone already addresses inter-annual variability,” so no further consideration of such variability is required under the Act. Indus. Br. 12. As EPA explained in the Rule, receptors’ current monitored data (reflecting ozone values from 2013-2015) is not generally representative of conditions that might lead to NAAQS violations “due to cooler than

normal temperatures during the summers of 2013, 2014, and 2015 which led to meteorological conditions which were generally unfavorable for the formation of high ozone concentrations.” 81 Fed. Reg. at 74,531. Conditions more favorable to ozone formation have occurred in the past and are likely to recur in the future, so this data alone is not sufficient to suggest receptors will permanently attain the NAAQS. *Id.* In fact, EPA found that even under these favorable conditions, the overall trend from the 2013-2015 data at seven of the nine receptors currently in attainment “suggest[s] that these sites are at risk of violating the NAAQS,” as did preliminary data from 2016. *Id.* at 74,532.

B. EPA’s Use of the Grid-Cell Approach Was Reasonable.

State and Industry Petitioners contend that EPA’s use of a “grid-cell” approach in its methodology for identifying nonattainment and maintenance receptors was unlawful because it included consideration of ozone concentrations over water bodies adjacent to coastal air quality monitors. State Br. 24-29; Indus. Br. 14. Petitioners’ claims are unavailing. EPA’s methodology reasonably explained the limited use of offshore ozone concentrations in its projections, consistent with *Michigan*, 213 F.3d 663. And in any case, Petitioners’ claims are immaterial, as altering EPA’s methodology to exclude offshore ozone would have had no effect on the states included under the Rule.

As explained above, EPA employed the grid-cell approach at Step 1 to determine each receptor’s “relative response factor”: the sensitivity of ozone

concentrations at a particular receptor to changes in emissions, where environmental and meteorological conditions are held constant. *See supra* Background IV.A. Under the grid-cell approach, EPA modeled this ozone sensitivity based on the “cell” with the highest ozone concentration within a three-by-three grid including and surrounding the “cell” of land housing the given air quality monitor. Modeling TSD at 13, JA594. Considering ozone concentrations immediately adjacent to the monitor, EPA explained, best accounts for the limitations of air quality modeling and the geography of the monitors – even where the adjacent grid cell is over water. *See* 81 Fed. Reg. at 74,534.

Petitioners argue that this approach is contrary to this Court’s holding in *Michigan*, 213 F.3d 663, which, according to Petitioners, concluded “that EPA cannot deem a State to contribute to downwind ozone problems based on contributions to offshore ozone.” State Br. 24; *see id.* 27-28. But EPA’s grid-cell approach was used only to identify problem receptors, not to determine the linkages between those receptors and particular upwind states. Modeling TSD at 3, 13, JA584, 594.

Notwithstanding EPA’s determination that a grid-cell approach best captures ozone concentrations at a receptor at Step 1, as described below, EPA’s methodology for analyzing contributions in Step 2 was constrained to quantifying state impacts on only the cell containing the receptor itself. This conservative design served to reasonably limit the Rule’s scope and, contrary to Petitioners’ argument, meant that no upwind

state was “deem[ed]” to be a significant contributor to downwind pollution on the basis of its “contribution to offshore ozone.” *See* State Br. 24.

In any case, *Michigan* is inapposite. The NO_x SIP Call under review had sought to regulate Wisconsin directly on the basis of elevated ozone concentrations over the entirety of Lake Michigan. *Michigan*, 63 Fed. Reg. at 57,387; NO_x SIP Call Air Quality Modeling TSD,¹⁴ App. A, fig. A-3a-A-3b, JA1457. The Court’s conclusion that this did not represent a “reasonable connection” is not instructive in this Rule, where EPA considered off-shore ozone only where high concentrations were predicted in a grid cell immediately adjacent to the receptor. Nor is it instructive where, as here, EPA used off-shore ozone only as part of a relative assessment of receptors’ response to changes in emissions. Unlike the NO_x SIP Call, which identified receptors directly on the basis of the model’s projected ozone concentrations, this Rule projected ozone concentrations by applying the relative response factors to actual monitored data at the receptor. This prevented any possibility that the Rule would include a receptor solely on the basis of routinely elevated levels of ozone over an adjacent water body, as these consistently high levels would not register as a change in ozone between 2011 and 2017.

Moreover, *Michigan* only held that EPA lacked “*record evidence* directly linking Wisconsin’s ozone contribution over Lake Michigan to nonattainment in any state.”

¹⁴ Available at: https://www3.epa.gov/scram001/reports/nox_sip.pdf.

213 F.3d at 681 (emphasis altered). The Court notably did *not* hold that offshore ozone could not be considered by EPA at all as a matter of law – only that EPA’s record did not show how Wisconsin’s contribution to offshore ozone “affects any onshore state nonattainment.” *Id.* The Court thus left open EPA’s authority to consider offshore ozone concentrations where it could “demonstrate[] a reasonable connection” between offshore ozone and onshore nonattainment. *Id.* EPA provided such a demonstration here.

First, EPA explained that the grid-cell approach accommodates the fact that air quality modeling includes some uncertainty when considered at the level of particularity demanded by the grid cells – each of which is only 12 km². 81 Fed. Reg. at 74,534. Small variations or idiosyncrasies in the model might influence whether ozone is shown to form in a particular cell or the one adjacent; as a consequence, looking only at the “monitor cell” containing the receptor, rather than assessing ozone concentrations in the nine cells including and surrounding the monitor, would risk mischaracterizing ozone problems at that receptor. EPA’s modeling guidance thus directs that when considering air quality at a given receptor, EPA should assess concentrations in the surrounding grid cells as well. *Id.*; Modeling Guidance at 102-03, JA244-45.

Second, “monitors are sometimes located very close to the border of two or more grid cells.” 81 Fed. Reg. at 74,534. Looking only at the cell containing the monitor could miss high ozone concentrations just across the cell’s border but within

the reasonable range of the monitor. Modeling Guidance at 102-03, JA244-45. Considering these two factors and the applicable guidance, EPA concluded that assessing the sensitivity of ozone response in the nearby grid cell with the highest ozone concentration, rather than calculating the relative response only at the monitor cell, would be “most representative” of ozone concentrations that could arise at subject receptors.¹⁵ 81 Fed. Reg. at 74,534. “This Court’s review of EPA’s modeling choices is deferential.” *EME Homer II*, 795 F.3d at 135.

Additionally, EPA specifically concluded in the record that offshore ozone was relevant to air quality at immediately adjacent coastal monitors because offshore air is commonly blown onshore “as part of a broader ‘synoptic scale’ wind pattern and/or during more local scale onshore wind flows” associated with “lake breeze[s]” and other similar phenomena. *Id.* Offshore ozone concentrations directly adjacent to coastal monitors thus have a direct relationship to ozone concentrations immediately onshore. EPA is entitled to deference concerning its technical determinations regarding representative concentrations and the relationship of offshore and onshore ozone. *Baltimore Gas*, 462 U.S. at 103; *North Carolina*, 531 F.3d at 925 (“[T]he court owes substantial deference to EPA’s technical expertise.”).

¹⁵ Notably, Petitioners do not object to the *concept* of a multi-cell approach. Petitioners advance such an approach in their own brief: the “overland-cell” approach, where EPA would consider adjacent cells provided they were over land. State Br. 27-28.

EPA went a step further in the Rule, however, and specifically assessed whether the grid-cell approach to calculating the expected relative change between 2011 and 2017 ozone concentrations demonstrated a bias towards predicting higher ozone concentrations in 2017, as compared to a “monitor-cell” approach – the alternative suggested by Petitioners in which EPA’s review of ozone concentrations would be limited to changes in ozone concentrations at the cell containing the air quality monitor (i.e., the receptor). State Br. 27. EPA’s assessment showed the opposite: for 75% of receptors, the grid-cell approach resulted in *lower* ozone concentrations than under the monitor-cell approach, suggesting that, if anything, using the wider lens of the grid-cell approach tended to underestimate, rather than overestimate, ozone relative to the monitor-cell approach. 81 Fed. Reg. at 74,534; Analysis of 3x3 vs Monitor Cell Projected Design Values, EPQ-HQ-OAR-2015-0500-0545, JA363-90 (“Grid-Cell Analysis”). At coastal monitors, the grid-cell approach fell in the middle of the spectrum: half of its projections fell below or within 0.5 ppb of the value calculated using the alternative monitor-cell approach, and half fell above that. 81 Fed. Reg. at 74,534. Petitioners erroneously suggest that this indicates bias because, they claim, the grid-cell approach led to “inflated” values for at least 4 of 8 monitors. State Br. 26. But a modeling approach that falls in the middle of the possible spectrum of outcomes is a comparatively unbiased model – showing neither a relative tendency to definitively overestimate or underestimate ozone. Having confirmed that the grid-cell approach appeared to carry no undue bias as compared to

Petitioners' monitor-cell approach, EPA concluded that it was a reasonable methodology. 81 Fed. Reg. at 74,534.

The record also disproves Petitioner's assertion that EPA's use of the grid-cell approach "had concrete and unreasonable ramifications" by compelling the inclusion of Iowa and Wisconsin in the Rule and, perhaps, three other states as well. *See* State Br. 29. In response to Petitioners' comments, EPA analyzed whether receptors identified under the Rule would have changed if EPA had adopted Petitioners' proposed monitor-cell approach. *See* 81 Fed. Reg. at 74,534-35. EPA's analysis of this alternative methodology shows that the only receptor to which Iowa and Wisconsin were linked – Allegan, Michigan – was modeled to be a maintenance receptor under either the grid-cell *or* monitor-cell methodology. Grid-Cell Analysis ("3x3 & Monitor Cell DV," Row 546), JA377 (showing a 77.7 ppb maximum design value under the grid-cell approach and a 77.4 ppb maximum design value under the monitor-cell approach).

As this analysis shows, Iowa and Wisconsin would have been included in the Rule under Petitioners' proposed methodology as well. The same is true for the three other states Petitioners say "appear to have been adversely affected by EPA's approach." *See* State Br. 29 n.15. Under a monitor-cell approach, all three upwind states would have remained linked to the same receptors to which they were linked under the grid-cell approach. *See* Grid-Cell Analysis, JA363-90. EPA's choice of

methodology here thus had no influence on the Rule's geography and no consequences for which upwind states were included in the Rule.¹⁶

C. EPA Appropriately Excluded Consideration of International Emissions When Identifying Receptors.

Industry Petitioners claim that in applying the Good Neighbor provision, EPA should have considered only those air quality problems that would exist absent the contributions of international emissions. Indus. Br. 15-17. EPA's failure to do so, Petitioners contend, resulted in "over-control" by "effectively requir[ing]" upwind states to compensate for international emissions. Indus. Br. 16. Petitioners' contention is contrary to the Rule's methodology – which limits upwind states' responsibility for emission reductions to their own "significant" emissions – as well as to the plain language of the Act.

First, Petitioners are incorrect that EPA's methodology requires states to "compensate" for NO_x effects attributable to international emissions. The level of control selected for upwind states was determined using EPA's longstanding interstate transport methodology, which sets CSAPR emission budgets by comparing the emission reductions that could be achieved at different levels of control stringency,

¹⁶ Petitioners also claim EPA should have considered the so-called "overland-cell" approach, which would generally maintain EPA's grid-cell method but exclude any cells over water. Because Petitioners' more restrictive monitor-cell method was demonstrated to have no impact on the geography or scope of the Rule, EPA reasonably declined to perform a second assessment of this less restrictive hybrid methodology.

represented by cost thresholds, and selecting the level of control capturing “significant” emissions. *See* 81 Fed. Reg. at 74,540. This is a holistic test, considering, in particular, the amount of air quality improvement achievable as compared to the point at which additional spending on emission controls would have substantially diminished returns. *Id.* Contrary to Petitioners’ contention, Indus. Br. 16, this methodology does *not* mandate that upwind states continue to reduce their emissions until the receptor reaches attainment, regardless of the source of the ozone pollution. Rather, upwind states are only obligated to address that portion of their own emissions considered “significant” under the Act. *See* 42 U.S.C. § 7410(a)(2)(D)(i)(I). Indeed, the original CSAPR determined that a control stringency of \$2,300/ton represented the fulfillment of states’ Good Neighbor obligations even where that level of control did not bring all receptors into attainment. 76 Fed. Reg. at 48,258-59.

The obligations on upwind states are further checked by EPA’s over-control analysis, established by the Supreme Court in *EME Homer*, 134 S. Ct. at 1608-09, which prevents any state from assuming responsibility for emission reductions that would have the effect of pushing all of its linked receptors below the NAAQS, or of pushing its contribution to all of those linked receptors below the 1% contribution threshold. *See also EME Homer II*, 795 F.3d at 127-132 (describing and applying the Supreme Court test). Here, EPA’s methodology and over-control analysis show that each state is at most reducing its *own* “significant” contributions, and that no state is doing any more than that. 81 Fed. Reg. at 74,551-52. Whether international

emissions might still be enough to push a receptor out of attainment, or not, is irrelevant to that analysis.

Similarly, Petitioners' claim that air quality problems are "actually attributable" to non-U.S. emissions because downwind receptors would attain the NAAQS absent non-U.S. contributions is unpersuasive in this context. *See* Indus. Br. 16. Many (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. Modeling TSD at C-3-4, JA618-19. Air quality problems like ground-level ozone, which is caused by collective contribution of emissions from many sources, cannot be assigned as "actually attributable" – in Petitioners' words – to any one responsible party over the others. Congress understood this in addressing interstate pollution: faced with a suite of responsible parties, but none exclusively so, Congress chose a scheme that shared the burden, to the extent possible, between those parties. Under this scheme, upwind states, just like downwind states, are required to bear independent responsibility for their *contributions* to the larger problem – but none bears responsibility beyond that point. 42 U.S.C. § 7410(a)(2)(D)(i)(I); *see EME Homer*, 134 S. Ct. at 1604 n.18 (concluding that the Act's "interfere with maintenance" prong is "of the same character" as its "contribute significantly to nonattainment" prong).

Finally, EPA's approach is supported by the broader text of the Act, which EPA reasonably concluded does not require EPA to exclude international emissions

when identifying nonattainment and maintenance receptors. *See id.* The Good Neighbor Provision provides only that state plans “shall . . . contain adequate provisions . . . prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will [] contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to” the NAAQS. 42 U.S.C. § 7410(a)(2)(D)(i)(I). Petitioners claim EPA must nonetheless read the Good Neighbor Provision to accord with a separate section of the Clean Air Act, section 7509a(a), where Congress provided that state plans to attain the NAAQS *within* a state “shall be approved” by EPA where (1) a plan meets all applicable requirements apart from the requirement that the plan “demonstrate” attainment of the NAAQS, and (2) the latter demonstration could have been made “but for emissions emanating from outside of the United States.” *Id.* § 7509a. But section 7509a does not exempt states from taking any emission control action that the statute would otherwise require. It merely allows for the approval of plans that cannot make the final demonstration that full compliance with the Act’s emission reduction requirements *will* result in attainment of the NAAQS. *Id.* The Act does not require upwind states to make such a demonstration in their Good Neighbor SIPs, so EPA reasonably concluded that areas subject to section 7509a’s requirements and upwind states under the Good Neighbor Provision are already held to the same standard: each must impose the Act’s emission control requirements “to the extent

they are reasonably available,” without regard to international emissions. RTC at 653, JA579.

D. EPA Reasonably Declined to Adjust Its Modeling to Reflect a Pennsylvania State Law Concerning Volatile Organic Compounds.

Petitioners contend that EPA’s identification of nonattainment and maintenance receptors in Step 1 was also flawed because EPA’s consideration of state rules that would come into effect in time for the 2017 ozone season excluded reductions of VOCs under Pennsylvania state law. This omission, Petitioners contend, “created the risk that EPA identified downwind ‘problem’ receptors . . . erroneously.” Indus. Br. 17. As the record reflects, this was not the case; instead, EPA found that the (more consequential) NO_x emission reductions from the Pennsylvania rule did not impact identification of any downwind receptors. EPA’s exclusion of the impact of Pennsylvania’s small VOC reductions was reasonable and, in any case, would constitute harmless error.

In the Rule, EPA explained that its methodology for identifying problem receptors took into account only those state rules in effect through February 1, 2016, and “impacting SO₂, NO_x, directly emitted particulate matter, and CO₂.” 81 Fed. Reg. at 74,528. This limitation was not arbitrary, but rather reflected the needs of the model itself. As EPA explained in the Rule, “there is a cutoff date after which it is no longer possible to incorporate updates into the [model’s] input databases” before

EPA must run the model. *Id.* at 74,528 n.108. Here, the cutoff was February 1, 2016. 81 Fed. Reg. at 74,528.

In April 2016, Pennsylvania finalized a rulemaking related to the 2008 8-hour ozone NAAQS to implement “Reasonably Available Control Technology” (or RACT) for NO_x and VOCs. 46 Pa.B. 2036, EPA-HQ-OAR-2015-0500-0461, JA275-312. Because the Pennsylvania rule would substantially reduce the state’s NO_x emissions before the 2017 ozone season, EPA made an exception to its methodology and performed a special analysis to incorporate the Pennsylvania rule’s NO_x reductions into the CSAPR Update’s identification of problem receptors. RACT Memo to the Docket, EPA-HQ-OAR-2015-0500-0558, JA463-67 (“Penn. Mem.”). EPA concluded that these additional NO_x reductions had no effect on any of the nonattainment or maintenance receptors identified in Step 1. *See id.*

At the same time, EPA declined to perform a comparable analysis of the effects of the Pennsylvania rule’s reduction of VOCs. This omission was reasonable, particularly given that NO_x emissions are the key driver to ozone formation in most of the eastern part of the country, as discussed in Argument II.E, *infra*. The Pennsylvania rule did not even project estimates of VOC reductions, and instead estimated only the rule’s NO_x reductions with a note that VOC reductions “will assist” in maintaining the ozone NAAQS. 46 Pa.B 2036 at 23, 36, JA297, 310. And Pennsylvania electric utilities, which account for the majority of the rule’s emission reductions, emit substantially more NO_x than VOCs: according to EPA’s projections,

they would emit 96,000 tons of NO_x in 2017 without the state rule, but would emit only 1,500 tons of VOCs (which is less than 0.5% of total VOC emissions in the State). *See* Emissions for 2011 and 2017 by State and Modeling Sector, EPA-HQ-OAR-2015-0500-0497, JA349-56. This is significant because EPA's analysis of the NO_x portion of the Pennsylvania rule demonstrated that even that rule's more substantial reductions of NO_x emission did not ultimately affect the receptors identified under the CSAPR Update and, thus, which upwind states were included under the Rule – a conclusion that Petitioners do not challenge. *See* Penn. Mem. at 4-5, JA466-67.

As the Pennsylvania rule's limitations on NO_x – on which the state rule was focused – ultimately did not change EPA's analysis, EPA reasonably declined to perform a comparable analysis for the VOC portion of the state rule, and EPA's failure to conduct such analysis could at most be harmless error.

E. EPA Appropriately Evaluated Contributions From Upwind Anthropogenic Emissions to Downwind Ozone Problems.

State Petitioners also challenge one of the air quality modeling tools EPA used in Step 2 to identify what portion of a receptor's downwind ozone concentration was attributable to anthropogenic activity from an upwind state, though they fail to offer any scientific rationale for why EPA's choice was unreasonable. State Br. 38-41. They allege that the tool unfairly apportioned the ozone formed when anthropogenic emissions from a state combine with biogenic emissions. This argument must fail

because EPA's model was appropriately tailored to identify linkages between upwind anthropogenic NO_x emissions and downwind ozone levels, consistent with the well-understood process of ozone formation, and warrants deference.

Ground-level ozone is not emitted directly into the air, but instead is a secondary air pollutant created by chemical reactions between NO_x and other ozone precursors in the presence of sunlight, sometimes over great distances. 81 Fed. Reg. at 74,513. These precursors are emitted from a variety of anthropogenic sources, such as electric utilities (predominately NO_x), as well as from biogenic sources. *Id.* The scientific consensus overwhelmingly indicates that elevated ozone concentrations found in much of the eastern United States are heavily influenced by anthropogenic ozone precursor emissions originating in other, upwind states. *Id.* at 74,514. When examining the impact of the long-range pollution transport on local ozone levels, model assessments have found that reducing NO_x emissions regionally is particularly effective at lowering ozone concentrations in nonattainment areas in the East, whereas reducing VOC emissions has a more limited downwind impact on ozone concentrations. *Id.* EPA's past experience administering the NO_x SIP Call, CAIR, and CSAPR, all of which controlled NO_x from electric utilities, has further borne this out. *Id.*

The EPA modeling tool at issue – OSAT/APCA – identifies all modeled ozone at a given receptor and “tags” what portion of that ozone concentration is attributable to various categories, such as fires, offshore vessels, and emissions from states. *Id.* at

74,536-37. That tool attributes ozone to a state where the ozone was formed in part due to anthropogenic emissions originating in that state. *Id.* at 74,536 n.123. Since the availability of anthropogenic NO_x is the limiting factor determining whether ozone forms downwind for much of the East, EPA reasonably selected a tool that targets the origin of such emissions.

As EPA explained during the rulemaking, because the ultimate purpose of the Rule is to lower ozone concentrations by limiting emissions, the appropriate modeling tool is one that assigns “culpability” for downwind ozone “to specific sources of emissions.” *Id.* at 74,536. EPA observed that OSAT, the alternative modeling tool preferred by Petitioners, provides “information [that] is irrelevant for identifying controllable sources.” RTC at 75, JA480. In contrast, OSAT/APCA is designed for “performing ozone source apportionment modeling for the purposes of performing an ozone precursor culpability analysis or aiding in the design of anthropogenic emission control strategies.” *Id.* (internal quotation omitted). In other words, EPA’s chosen tool is better tailored to the task at hand, i.e., identifying and apportioning upwind emissions that subsequently form downwind ozone for the purpose of designing a rulemaking to control those emissions. In fact, even commenters who opposed use of the OSAT/APCA tool acknowledged that it is “typically recommended” for the purpose of developing a control strategy. *See, e.g.*, Comment Letter from Cedar Falls Utilities, Exhibit D, EPA-HQ-OAR-2015-0500-0369, JA1292.

Finally, the basis for State Petitioners' assertion that "some of the now-free biogenic VOCs will combine with the now-free biogenic NO_x" leading to "double counting," State Br. 39, is unclear. This challenge was not presented to the agency during the rulemaking and cannot be raised for the first time in a judicial challenge to the Rule, *see, e.g.*, 42 U.S.C. § 7607(d)(7)(B); *Nat'l Ass'n of Clean Air Agencies*, 489 F.3d at 1231. To the extent that the States are arguing that reducing anthropogenic NO_x emissions would generally have the effect of increasing ozone concentrations, the science of ozone formation and prior efforts to combat this pollution problem directly contradict the States' unsupported theory. 81 Fed. Reg. at 74,514. If State Petitioners are suggesting that EPA's modeling does not account for ozone formed when biogenic NO_x emissions interact with biogenic VOC emissions, that is demonstrably wrong. EPA separated such ozone in its analysis, so it is not attributed to any state during the Step 2 analysis. *Id.* at 74,537.

F. EPA Appropriately Considered Downwind States' Contributions to Air Quality When Setting State Budgets.

Industry Petitioners claim the Rule also "over-control[s]" upwind emissions because EPA was required, but failed, to consider potential emission controls that may be implemented in downwind states before imposing controls on upwind states. *Indus. Br.* 22-23. In support of this alleged obligation, Petitioners cite CAA sections 7407(a) and 7410(a)(1), which generally provide that each state has "primary responsibility for assuring air quality" within its borders. *See id.*; 42 U.S.C. §§ 7407(a),

7410(a)(1). Petitioners further note EPA's statements in the NO_x SIP Call and CAIR rules, in which EPA concluded that upwind reductions were necessary because the NAAQS were unlikely to be met through actions in downwind states alone. Indus. Br. 22. Petitioners' approach does not accord with the statutory text, which EPA has reasonably interpreted. Furthermore, the Rule analyzed whether the combined effect of equitable upwind and downwind emission reductions would constitute "over-control" under *EME Homer*, and concluded that it would not.

First, Petitioners' approach would contravene the statutory text. Although the Act provides that states have "primary responsibility" for air quality concerns within their borders, 42 U.S.C. § 7407(a); Indus. Br. 22 – and thus subjects them to more complex planning requirements and consequences for failing to comply, *see, e.g.*, 42 U.S.C. §§ 7509(d), 7511(b)(2)-(4), 7511a – the Act's drafters were unequivocal in requiring upwind states to submit plans for prohibiting their contributions to these air quality concerns *before* downwind states. The Act imposes requirements on both upwind and downwind states with respect to NAAQS attainment but excludes any provision making upwind states' obligations contingent on the failure of downwind measures. *See, e.g.*, 42 U.S.C. §§ 7410(a)(2), 7511a. Quite the opposite: as EPA explained in the Rule, under the design of section 7410, upwind states are required to submit SIPs defining their Good Neighbor requirements within three years of promulgation of a new or revised NAAQS – "one of the first chronological actions in NAAQS implementation." 81 Fed. Reg. at 74,516; *see* 42 U.S.C. § 7410(a)(1). SIPs

from downwind states with nonattainment areas, on the other hand, are generally due within five to six years of promulgation of a new or revised NAAQS. 81 Fed. Reg. at 74,516; *see* 42 U.S.C. §§ 7407(d)(1)(B) (designations required two-three years after NAAQS promulgation), 7502(b) (SIPs due three years after designation).

Consequently, the control obligations for sources in downwind states may not be defined until three years *after* upwind states must assess their independent Good Neighbor obligations. *Id.* Thus, as the Supreme Court explained in *EME Homer*, the Act “speaks without reservation” in requiring upwind states to propose “provisions adequate to satisfy the Good Neighbor Provision” within three years of NAAQS promulgation, *EME Homer*, 134 S. Ct. at 1601, and in advance of downwind planning necessary to fulfill the Act’s nonattainment requirements. This is not a drafting error. Rather, the statutory design ensures that “downwind areas are able to plan for attainment and maintenance while accounting for previously determined and quantified upwind actions.” 81 Fed. Reg. at 74,516. Accordingly, Petitioners should not prevail on the suggestion that the statute requires EPA to predict downwind reductions before imposing reductions on upwind states. The statutory text does not require any such analysis. Under the Act, upwind states bear responsibility in the first instance for proposing SIPs to address interstate transport concerns. 42 U.S.C. § 7410(a)(1).

In any case, the Rule did, in fact, consider reductions available in downwind states when assessing the reasonableness of the budgets under the CSAPR Update.

EPA's budget-setting methodology assessed reductions that could be achieved at \$1,400/ton in *both* upwind and downwind states, on the assumption that downwind states (i.e., the home state of each receptor) would bear the same responsibility as upwind states for reducing ozone pollution. 81 Fed. Reg. at 74,550. This allowed EPA to analyze whether the *combined* upwind and downwind emission reductions at that level of control stringency would constitute "over-control" under *EME Homer*. EPA's over-control analysis demonstrated that it would not. *Id.* at 74,551-52. Petitioners' argument must therefore be rejected.

G. EPA's Remedy for Maintenance Receptors Was Reasonable.

Industry Petitioners claim the Rule is also unlawful because EPA imposed the same burden on states linked only to maintenance receptors as those linked to nonattainment receptors. According to Petitioners, because maintenance receptors presently meet the NAAQS or will meet it in 2017, states linked only to those receptors should not be subject to emission reductions but only to a requirement to maintain their emissions at existing levels. Indus. Br. 25-26. Requiring emission reductions, Petitioners say, resulted in "over-control" of emissions from the four states linked only to maintenance receptors. *Id.*

Petitioners' argument relies on a faulty premise: that maintenance receptors will only violate the NAAQS if upwind emissions increase. This ignores the complex dynamics that give rise to ozone formation, which responds to ozone precursors like NO_x, but also to variations in atmospheric conditions and weather patterns. 81 Fed.

Reg. at 74,513-14, 74,532. As a result, EPA’s methodology captures receptors where annual variability in environmental conditions is expected to cause violations of the NAAQS, even if emissions are held constant. *Id.* at 74,532. EPA reasonably determined that “prohibiting” emissions contributing to these expected violations requires that linked upwind states do more than the status quo. *Id.*

Petitioners’ statement that EPA “did not, and could not, demonstrate that it was necessary to force additional emission reductions in those [maintenance-linked] states,” Indus. Br. 26, is thus belied by EPA’s description of the conditions under which a receptor is categorized as a maintenance receptor, 81 Fed. Reg. at 74,531-33; its elaboration of the methodology used to link upwind states to those receptors, *id.* at 74,537-38; and its treatment in the over-control analysis of the impacts of reductions made by maintenance-linked states, *id.* at 74,550-53.

Moreover, although Petitioners claim their challenges are viable because this Court reserved petitioners’ ability to bring “as-applied” challenges to EPA’s maintenance methodology based on “actual . . . instances of over-control,” *see EME Homer II*, 795 F.3d at 137; Indus. Br. 25, Petitioners identify no evidence to suggest there are actual instances of over-control here. To the contrary, as EPA explained above in Background IV.C, EPA’s analysis under *EME Homer* demonstrated that the Rule does not over-control. Under the Rule, states linked only to maintenance receptors must make emission reductions reflecting a level of control of \$1,400/ton of NO_x – and yet even with these states required to *reduce* (and not merely maintain)

their emissions, the majority of receptors were still projected to struggle with maintenance of the NAAQS. *See* 81 Fed. Reg. at 74,551-52. Only a handful of receptors were projected to have no further maintenance issues, and only Tennessee was linked exclusively to those receptors. *Id.* But, in accordance with the Supreme Court's instruction, EPA demonstrated that air quality problems at Tennessee's receptors could not be resolved at a less stringent level of control. *Id.* EPA thus demonstrated that the Rule did not limit emissions from maintenance-linked states in excess of the amount that would be "just enough to permit an already-attaining State to maintain satisfactory air quality." *See EME Homer*, 134 S. Ct. at 1604 n.18.

Ultimately, Petitioners' complaint that maintenance-linked states are unreasonably subject to the "same degree of emission reductions" as nonattainment-linked states must fail. *Indus. Br.* 25. There is no legal or practical prohibition on the Rule's use of a single level of control stringency for both kinds of receptors, provided that the level of control is demonstrated to result in meaningful air quality improvements without triggering either facet of the Supreme Court's test for over-control. So while concerns at maintenance receptors can potentially be eliminated at a lesser level of control in some cases given the smaller problem being addressed, this is a practical possibility, not a legal requirement. *See* 81 Fed. Reg. at 74,520. Here, EPA's use of the same level of control for both maintenance-linked states and nonattainment-linked states is attributable to the fact that the Rule considered only emission reduction measures available in time for the 2017 ozone season. *Id.* at

74,520. Under this constraint, both sets of states reduced significant emissions, without over-control, at the same level of control. *Id.* at 74,551-52. Accordingly, EPA's selection of a uniform level of control for both types of receptors was reasonable.

H. EPA's Apportionment of Responsibility Among Upwind States Reasonably Excluded Reductions From Unlinked States.

Industry Petitioners claim the Rule "over-controls" emissions because EPA's over-control analysis failed to consider the impact of emission reductions from states included in the Rule but that contribute less than 1% of the NAAQS at a particular receptor. *Indus. Br.* 18-22. According to Petitioners, the cumulative effect of these "non-linked" emissions can be "large," accounting in EPA's 2017 baseline modeling for up to 4.71 ppb of the 75-ppb NAAQS standard at certain receptors. *Indus. Br.* 19-20.

Petitioners' proposed over-control test is at odds with EPA's interpretation of the statute. The Good Neighbor Provision is overt in placing a burden on states only with respect to their emissions that "contribute significantly" to or "interfere with maintenance" of downwind air quality problems. *See* 42 U.S.C. § 7410(a)(2)(D)(i)(I). EPA has reasonably interpreted this to mean that a state bears responsibility for reducing only those emissions that contribute 1% or more of the applicable NAAQS standard to a given downwind receptor and which can be reduced by implementing cost-effective controls. *See* 81 Fed. Reg. at 74,508. Accordingly, under EPA's

interpretation of the Act, emissions below the contribution threshold are beyond the scope of responsibility established in the Good Neighbor Provision. *See* 42 U.S.C. § 7410(a)(2)(D)(i)(I).

Although Petitioners couch their argument here as a concern about over-control, *see* Indus. Br. 18, Petitioners' proposed over-control test would effectively shift a portion of the burden to eliminate upwind emissions back onto states' emissions that are excluded by the Act. EPA reasonably concluded that doing so was contrary to the statutory requirement that responsibility be borne by states that "contribute significantly" to (or "interfere with") downwind air quality at a given receptor, as it would make the obligations of linked upwind states contingent on the reductions being achieved by unlinked states. 81 Fed. Reg. at 74,550; RTC at 443, JA550; *see North Carolina*, 531 F.3d at 921 (noting each upwind state should bear the primary responsibility for eliminating its own significant contribution). This conclusion was particularly reasonable in light of the Supreme Court's conclusion that EPA "has a statutory obligation to avoid 'under-control'" of upwind emissions, as well as over-control. *EME Homer*, 134 S. Ct. at 1609.

In any event, EPA concluded in the Rule that the incidental emission reductions from unlinked states have "little air quality impact." RTC at 443, JA550; *cf. EME Homer*, 134 S. Ct. at 1608 (concluding that over-control is permissible where "incidental to reductions necessary to ensure attainment elsewhere"). Petitioners' contention that EPA lacked support for this conclusion is rebutted by the record. As

an initial matter, Petitioners' citation to EPA air quality modeling forecasting that cumulative unlinked emissions could contribute between 4 and 5 ppb at five receptors in 2017, Indus. Br. 19, is uninformative. This projection of the total impact from these states does not indicate whether the *reductions* from unlinked states required under the Rule would actually influence ozone concentrations at these receptors. *See* Ozone TSD at 27-33, JA435-41 (explaining how EPA estimates air quality benefits of emission reductions).

The data available in the record answers this question and supports EPA's conclusion that any incidental benefits of the Rule would have little effect at downwind receptors. Even considering *all* reductions of unlinked emissions excluded from EPA's over-control analysis – including from states not included in the Rule at all – the cumulative reductions from unlinked states would *at most* reduce ozone at any receptor by 0.077 ppb. “AQAT final calibrated” Spreadsheet, EPA-HQ-OAR-2015-0500-0492,¹⁷ JA325-45, 336 (showing Hamilton, Ohio receptor at 74.781 ppb under the Rule, and at 74.704 ppb counting cumulative reductions from all forty-eight contiguous states). The influence of unlinked states would shrink even further when considering only the subset of unlinked states that are included in the Rule for other linkages. More importantly, the unlinked emission reductions possible from all forty-

¹⁷ To display air quality improvement from applying a \$1,400/ton control level across the contiguous United States, use tab “1400 eng EB,” change the value in cell “H2” from 4 to 6, and see cell “BP714.”

eight states (let alone Rule-states only) would not bring a single additional receptor into attainment. *Id.* at JA325-45. Even under Petitioners' theory, the Rule would not constitute over-control, *see EME Homer*, 134 S. Ct. at 1609, so there would be no basis to alter its scope or requirements. Therefore, Petitioners' argument must be rejected.

I. EPA Reasonably Assessed the Feasibility of Installing New Combustion Controls When Calculating State Budgets.

Industry Petitioners assert that EPA erred in assuming that new combustion control equipment could be installed by the 2017 ozone season. Indus. Br. 26-28. Petitioners assert that installation of such controls typically requires 18 months or more, not the six months that EPA determined was feasible. EPA considered the comments submitted by UARG and retained its initial assessment that it is feasible to install these controls in a six-month time period based on prior examples. *See* Mitigation TSD at 11, JA401 (citing original CSAPR TSD, EPA-HQ-OAR-2009-0491-0051, JA1451-53). The comments Industry Petitioners reference are anecdotal, and neither prove nor disprove what a feasible timeframe would be for installing such equipment. Assuming the information presented in the comments could be substantiated with verified data, the anecdotal information merely describes the time that some facilities took to install equipment when unconstrained by any legal obligation to act more quickly. The information does not undermine EPA's prior determination that a six-month installation time is feasible, even if aggressive. Thus EPA's use of this timeframe was reasonable on the record. But ultimately this issue is

immaterial because EPA showed the Rule could be complied with even without installing such equipment. *See* RTC at 489-90, JA568-69. Reductions from new combustion controls are well within each state's assurance level (with the exception of Arkansas, for which EPA delayed full implementation until 2018 in recognition of its units' unique circumstances, 81 Fed. Reg. at 74,552). *Compare* RTC at 490 (showing state-by-state reductions from installation of new combustion controls) *with* 81 Fed. Reg. at 74,567 (Table VII.E-2) (listing variability limits for each state).¹⁸

J. The Challenged Modeling Assumptions in EPA's Budget-Setting Methodology Had No Impact on the Rule's Stringency Because EPA Used a "Relative-Rate" Comparison.

Industry Petitioners identify two aspects of EPA's budget-setting methodology that they claim EPA failed to support. Industry Petitioners' arguments ignore the structure of EPA's methodology, under which these particular model assumptions had no bearing on (or served to increase) the final state budgets, and likewise ignore the explanations EPA provided in the Rule. In any case, this court must defer to EPA's "modeling choices." *EME Homer II*, 795 F.3d at 135.

¹⁸ Preliminary information regarding the 2017 ozone season shows no state exceeded its assurance level, and total emissions were approximately 7% below collective budgets. *See* Air Markets Program Data, JA1476-78, also available at: <https://ampd.epa.gov/ampd/> (to review state-level data: (1) select "Create a Query," (2) select "Cross-State Air Pollution Rule NOx Ozone Season Group 2 Program" and "Emissions - Unit Level," (3) select "Ozone Season" and "2017," (4) select a state from the "State" menu, (5) aggregate by "State," and (6) select "NO_x").

1. EPA's approach to idling units had no meaningful impact on the budgets.

Petitioners contend that the Rule is unlawful because EPA failed to support or explain IPM's forecast that certain facilities would be "idled" in 2018 (the model's "run year"). According to Petitioners, this modeling result conflicts with EPA's statement that it constrained the model from predicting unit retirements that had not already been announced, as – according to Petitioners – retirement and idling "amount[] to the same thing." Indus. Br. 24. Petitioners' complaint is contrary to the nature of a "least-cost dispatch" electrical grid and any model that seeks to replicate it, and ignores salient differences between idling and retiring within the model. Plus, it is ultimately irrelevant to the final state budgets.

To begin, IPM is a well-established economic model of the electric power sector, designed to help government and industry analyze a wide range of issues. The model uses a large database of real-world information about the U.S. electric grid to determine the least-cost method of meeting electrical demand over a specified period. Documentation for EPA Base Case v.5.13 Using the Integrated Planning Model at 2-1, EPA-HQ-OAR-2015-0500-0196, JA252. The model, like the electric grid, always seeks to dispatch the cheapest generation available to meet demand. As a consequence, the model will not forecast generation from units that are more expensive to run than other available units. Thus, when cheaper generation is

available, uneconomical units will, necessarily, be “idle.” *See* 81 Fed. Reg. at 74,528 (IPM is “designed to reflect electricity markets as accurately as possible”).

EPA’s decision to constrain the model from predicting retirements does not conflict with the model’s logic for dispatching, or idling, units based on short-term supply and demand. The constraint on retirements merely prevented the model from identifying units whose poor profitability in the *long-term* made present operation uneconomical. This was reasonable because the Rule was concerned with electric dispatch in the very near future, so any unit retirements in that period were likely already announced. EPA’s reasonable decision to constrain the model from predicting retirements here, however, did not create a special duty to explain why the model still continued to “idle” higher-cost units to reflect real-world grid conditions. *See id.* at 74,528-29; RTC at 320.

In any event, the idling occurring in the model had virtually no effect on the state budgets, so Petitioners’ complaint is irrelevant. EPA used IPM in budget-setting only to determine the delta between the NO_x rate in the baseline case and the control case (at a given level of control stringency), which it then applied to each state’s historical 2015 NO_x emission rates. Ozone TSD at 11-12, JA419-20. Consequently, variables that stayed constant between the baseline case and the control case – including idling at a given unit – did not influence how much units were expected to reduce their emissions relative to their historical baseline. This addressed commenters’ concern that relying solely on the emission rate forecast by IPM might

under- or over-predict emission reduction potential as a result of some determination in the model's 2017 baseline case. *See* 81 Fed. Reg. at 74,547. Here, it specifically precluded the possibility that a unit idled (or retired) in the baseline case would affect the budgets. Summary of EPA's Review of Comments on NEEDS and IPM at 2, EPA-HQ-OAR-2015-0500-0544, JA361. Indeed, all of the units identified by Petitioners are forecast to be idle in both the baseline and control cases. *See* IPM Run Files Supporting the Final CSAPR Update Rule, EPA-HQ-OAR-2015-0500-0487,¹⁹ JA313-24. Because the record is clear both as to the model's reasonable use of idling and the irrelevance of that idling to the final state budgets, Petitioners' argument lacks merit.

2. EPA's approach to SCR emission rates was reasonable.

Petitioners claim that EPA's use of emission rates for SCR-equipped facilities as low as 0.075 lbs/mmBtu in certain parts of the budget-setting methodology was inconsistent with EPA's claim that it would use a rate of 0.10 lbs/mmBtu to reflect "the lowest achievable rate for such [units]." *Indus. Br.* 24. EPA's failure to account for this inconsistency, Petitioners claim, was arbitrary. Petitioners' argument conflates separate and distinguishable elements of EPA's methodology. EPA reasonably

¹⁹ Available at: <https://www.epa.gov/airmarkets/analysis-cross-state-air-pollution-rule-update> (*see* "RPE File" from "IPM v5.15 Final Base Case for the CSAPR Update," JA313-18, and "IPM v5.15 Final 1,400 per ton EGU Cost Threshold Assessment," JA319-24, showing units operating in the model's baseline and control cases and excluding Petitioners' units 3635, 3732, 5757, 4219, 4218, and 5871).

assumed that SCR-equipped units already operating below an emission rate of 0.10 lbs/mmBtu would continue to do so in both the baseline case and the control case modeling. However, for SCR-equipped units not already achieving the 0.10 lbs/mmBtu rate, EPA assigned this rate in the control case (but not the baseline case) to reflect realistically achievable emission rate improvements from turning on and optimizing their SCR equipment. As explained below, both assumptions tend to benefit the regulated industry.

As an initial matter, the SCR emission rates EPA used in setting the budgets relied on units' actual, measured emission data where that data reflected efficient operation of that control. *See* Mitigation TSD, at 5, JA395; RTC at 502-03, JA570-71; *supra* Argument I.B.1. Where data demonstrated that units were fully operating their SCR at or below 0.10 lbs/mmBtu, EPA assumed such units would continue to achieve that rate in both the baseline case and the control case modeling. *Id.* Given EPA's relative-rate reduction approach to budget-setting, emission rates held constant in both the baseline and the control case did not affect state budgets. *See supra* Argument J.1.²⁰

Petitioners also specifically challenge EPA's approach to common stacks, which present a unique challenge in assigning an SCR emission rate, though the result

²⁰ To the extent Petitioners' challenge extends to EPA's adjustment of certain units' historical emissions below 0.10 lbs/mmBtu to reflect newer SCR installation, that argument is addressed at Argument K.2, *infra*.

is the same. Indus. Br. 24. Where two units at a power plant share a common exhaust stack but only one of the two is equipped with SCR controls, there is no reliable data to determine the emission rates of the individual units. For those units, EPA's baseline *and* control case modeling assumed that the SCR-equipped units are already operating efficiently at a rate of 0.075 lbs/mmBtu. CSAPR Update Base Case using IPM Incremental Documentation TSD at 7-8, EPA-HQ-OAR-2015-0500-0556, JA461-62. While Petitioners claim EPA was unreasonable to use emission rates below 0.10 lbs/mmBtu in this context, the use of lower SCR rates did not actually affect the budget because, again, EPA assumed no change in the control case. And assuming an emission rate of 0.075 lbs/mmBtu in the baseline case for common stack units "is a conservatively low rate which implies that these units *cannot achieve any additional reductions.*" *Id.* (emphasis added).

Petitioners obfuscate the issue by quoting from EPA's discussion of the use of the 0.10 lbs/mmBtu rate assigned as a default in the *control* case to units that were not already optimizing operation of their SCR. Indus. Br. 24-25 (citing 81 Fed. Reg. at 74,543). There, EPA explained that assigning emission rates below 0.10 lbs/mmBtu would "yield[] a lower emission budget" but might be beyond the capability of all covered units. *Id.* at 74,543; *see* Indus. Br. 25. But this observation does not apply when assigning lower rates to certain units in the *baseline* case, where, as EPA explained, the lower rate implies such units cannot achieve further reductions because they are already operating efficiently. Accordingly, State and Industry Petitioners were

not harmed by EPA's reasonable decision to assign lower SCR emission rates for certain units in the baseline case.

K. State Budgets and Unit Allocations Determined According to EPA's Established Methodologies Were Neither Arbitrary nor Capricious.

1. Mississippi's state budget was reasonable.

Mississippi Power Company ("Mississippi Power") contends that EPA's relative-rate budget-setting methodology set an "overly stringent" budget for Mississippi.²¹ This argument is unavailing. As EPA explained, its relative-rate methodology for setting state budgets was based on historical emission rate data that EPA then adjusted according to the emission rate improvement potential indicated by EPA's modeling. Mississippi Power claims this methodology treated Mississippi unfairly because its historical emissions were below EPA's *modeled* baseline and control cases. According to Petitioner, EPA unreasonably set the State's budget at 6,315 tons of NO_x (per ozone season) despite the fact that "EPA's modeling shows that – based on EPA's \$1,400-per-ton threshold – Mississippi's 'significant contribution' would be fully eliminated by limiting its emissions to 7,499 tons." Indus. Br. 36. Mississippi Power's argument mistakes the meaning of EPA's "\$1,400-per-ton" control case in two different, but equally problematic, ways.

²¹ Petitioner also alleges that Mississippi's budget over-controls because the cost of budgeted reductions far outweighs the benefits. That argument is addressed *infra* in Argument L.2.

First, Mississippi Power suggests that because the IPM model's \$1,400/ton control case projected Mississippi NO_x emissions to be 7,499 tons after controls were applied, it is unreasonable to set Mississippi's budget below that level. Indus. Br. 36. This ignores the reasoning for applying a relative-rate methodology in the first place. As commenters pointed out in response to the proposed rule, an "absolute" modeling methodology – where state budgets were set solely by the IPM control case's projection of NO_x rates in 2017 – meant particular modeling assumptions *apart* from the control scenarios being evaluated could have a meaningful effect on state budgets. 81 Fed. Reg. at 74,547. If the model's baseline 2017 emissions for a given state appeared too high or too low compared to actual data, due to some structural assumption of the model, then the resulting budget would likewise be too high or too low. The virtue of EPA's relative-rate methodology was that it eliminated this possibility *in both directions*. *Id.* Under a relative-rate methodology, the model's projections need not perfectly match reality in every instance; it is enough that they show how much emissions can be improved from a baseline case to a control case with all other variables kept constant. Mississippi Power fails to establish how the model was inadequate for that more limited purpose, or why Mississippi should receive different treatment from other states. Further, its complaint that it would be unreasonable to set Mississippi's budget below the control-case result is illogical given that Mississippi Power itself admits that the State's "actual historic rate [is] already below . . . the modeled 'base[line] case' [and] 'control case.'" Indus. Br. 35. Setting

Mississippi's budget *above* its historical emission rate would allow the State to increase emissions, in contravention of the Act.

Second, Petitioner claims that EPA's modeled \$1,400/ton level of control represented EPA's determination of the control level at which "Mississippi's 'significant contribution' would be fully eliminated," and so anything below that level is over-control. Indus. Br. 33, 36. This is false. EPA deemed the CSAPR Update a partial remedy, and EPA did not determine the level of control that would fully satisfy the covered states' Good Neighbor obligation or "fully eliminate" those states' significant contribution (save for one: Tennessee). 81 Fed. Reg. at 74,521-23, 74,550-52. Mississippi Power is therefore incorrect that Mississippi's budget reflected a control level beyond what may be necessary for Mississippi to "eliminate[]" its "significant contribution." *See* Indus. Br. 36. To the contrary, EPA's over-control analysis showed that even if units in Mississippi met their budget of 6,315 tons of NO_x, Mississippi's impact would remain above the 1% contribution threshold at both of its linked downwind receptors, and both of those receptors would remain above the NAAQS. *See* 81 Fed. Reg. at 74,538-39.²²

²² Preliminary information regarding the 2017 ozone season shows that Mississippi's emissions were 6,051 tons, below its 6,315-ton budget. *See supra* note 18, JA1476; 81 Fed. Reg. at 74,508.

2. Indiana's state budget was reasonable.

Indiana Energy Association and Indiana Utility Group (“Indiana Petitioners”) likewise raise claims that Indiana’s budget was unfairly influenced by EPA’s budget-setting methodology. None of these claims has merit.

Indiana Petitioners first contend that Indiana’s final budget under the Rule is unreasonable because it is lower than both the State’s budget at proposal and the emission level calculated in EPA’s feasibility analysis. Indus. Br. 31. First, EPA provided a thorough explanation in the Rule as to why, in response to comments, it altered its proposed methodology in favor of the Rule’s “relative-rate” methodology. *See* Indus. Br. 33. Petitioners’ own citation explains EPA’s rationale, which was to ensure modeled projections of structural change in the power sector by 2017 canceled each other out between the baseline and control cases and so did not influence final state budgets. *See* Ozone TSD at 11-12, JA419-20; 81 Fed. Reg. at 74,547.

Likewise, Indiana Petitioners misunderstand the design and import of EPA’s feasibility analysis. *See* Indus. Br. 31. In an effort to confirm that the Rule’s overall budget was achievable, EPA performed an “independent check to demonstrate [units’] ability to comply with the [Rule’s] requirements.” Mitigation TSD at 14, JA404. This secondary analysis calculated the emission reductions available to states from a *subset* of emission control technologies: “turning on idled SCR, optimizing all SCR to historically demonstrated NO_x emission rates, installing state-of-the-art combustion controls, and turning on idled SNCR.” 81 Fed. Reg. at 74,561. EPA

excluded improvements from other available reduction strategies such as shifting generation to lower-emitting sources. Mitigation TSD at 15, JA405. EPA also placed other limitations on the analysis, for example assuming that retiring units would be replaced by new generation emitting at the state's average NO_x rate across all covered units (that is, forgoing the possibility that new generation would be cleaner than existing fossil fuel units). *Id.* at 14, JA404.

Given these artificial constraints, it is unsurprising that for some states the feasibility analysis predicted NO_x emissions slightly above that state's final budget. Importantly, however, the feasibility analysis demonstrated that the covered states as a whole have sufficient reductions, even using these limited measures, to stay under the Rule's overall budget, and that no state would exceed its assurance level, including Indiana. 81 Fed. Reg. at 74,562 (Table VII.D-1). Adding allowances banked during the original CSAPR, the pool of emission allowances available for compliance here is ample. Mitigation TSD at 15, JA405.

Indiana Petitioners also contend that EPA's use of 2015 data to determine states' historical heat input harmed Indiana units, whose heat input was lower in 2015 than in 2014 (the data year in the proposal). *Indus. Br.* 31. In both the proposal and the final Rule, EPA's budget-setting calculation used the most recent emissions data available. *See* 80 Fed. Reg. 75,706, 75,739 (Dec. 3, 2015); 81 Fed. Reg. at 74,561. EPA reasonably concluded that using updated 2015 data in the final Rule would most accurately reflect fleet composition, electricity demand, and facility performance. 81

Fed. Reg. at 74,561. Petitioners, meanwhile, do not explain why EPA should have ignored up-to-date data in the Rule, save Indiana's own preferences. Nor do Petitioners present any evidence that special circumstances unduly influenced Indiana's 2015 heat input. The evidence in the record suggests the opposite. Both Indiana's heat input and NO_x emissions (for the year, rather than the ozone season) continued to drop between 2015 and 2016, while the State's emission rate remained steady, 2015 vs Preliminary 2016 NO_x Emissions and NO_x Rates, Row 10, EPA-HQ-OAR-2015-0500-0520, JA359, supporting EPA's conclusion that 2015 was more representative of the State's NO_x emissions than 2014.²³

While Petitioners are correct that annual variation in weather or market conditions can influence facilities' heat input from year to year, EPA's assurance levels address this concern by allowing states to emit NO_x up to 21% beyond their state budget without any penalty. 81 Fed. Reg. at 74,566-67. EPA's feasibility analysis makes plain that even a conservative projection of Indiana's available reductions will keep it below that limit. *Id.* at 74,562 (Table VII.D-1).

Finally, Indiana Petitioners take issue with adjustments EPA made to Indiana's 2015 historical emission rate to account for fleet changes between 2015 and 2017. In particular, Petitioners claim EPA made "erroneous, unjustified" adjustments to the

²³ Preliminary emissions data demonstrates this trend continued during the 2017 ozone season, in which Indiana emitted 20,369 tons of NO_x – some 3,000 tons below the State's budget. *See supra* note 18, JA1476; 81 Fed. Reg. at 74,508.

anticipated emission rates at “certain Indiana SCR-equipped [units],” pointing to the two Cayuga units, where EPA set emission rates of 0.075 and 0.070 lbs/mmBtu.

Indus. Br. 32. These rates were too low, Petitioners claim, because the “SCR installed in 2015 was not in use” in 2015 or 2016. *Id.* 32 n.30.

At the time the Rule’s modeling was conducted, only 2015 ozone season data was available. 81 Fed. Reg. at 74,561. EPA reasonably assumed – as it did for all units with announced new SCR equipment being installed but not yet operational – that by the 2017 ozone seasons, Cayuga would complete installation of its SCR controls and operate them at a rate of 0.075 lbs/mmBtu. *See, e.g.*, Ozone TSD at 12 & n.11, JA420.²⁴ Indiana Petitioners protest that this rate was “arbitrarily-derived [and] customized” and at odds with EPA’s assumed rate of 0.10 lbs/mmBtu for SCR-equipped units. Indus. Br. 32. But the record is clear that for new SCR equipment – unlike existing, idled SCR equipment – this lower rate was appropriate to reflect newer, better-performing controls. Ozone TSD at 12 & n.11, JA420; Mitigation TSD at 14, JA404; *see also* 81 Fed. Reg. at 74,543 (explaining basis for assigning higher 0.10 rate to older SCR-equipped units), 74,547 (explaining adjustment of states’ historical 2015 emission rates to reflect “[a]nnounced new SCR at existing [units]”). And EPA

²⁴ Petitioners also claim EPA used a rate of 0.070 lbs/mmBtu when “modif[y]ing” Indiana’s 2015 historic emissions data.” Indus. Br. 32. This is incorrect. EPA adjusted the Cayuga units’ 2015 historical emission rate to 0.075 lbs/mmBtu per its methodology. This was unrelated to the 0.07 lbs/mmBtu rate assigned Cayuga’s units in the baseline and control cases in IPM, which, under the relative reduction methodology, had no effect on the budget. *See supra* Argument J.2.

applied this adjustment fairly and uniformly across the class of units addressed in the Rule that announced new SCR controls.

In any case, even if EPA had treated Cayuga's SCR controls in the baseline case as remaining unused in 2017, the result could have been a more stringent budget. Instead of accounting for this SCR capability through an upfront adjustment to the State's historical emission rate, EPA's IPM baseline case would have reflected that these SCR controls were not yet turned on, and IPM's control case would have turned them on. Whether through a baseline adjustment or through IPM's modeling of emission rate reduction potential, Indiana's budget was certain to presume operation of the Cayuga units' SCR equipment – a basic objective of EPA's selected level of control. 81 Fed. Reg. at 74,543 (Table VI.B-1). Petitioners' argument is thus both unavailing and of negligible relevance to the outcome of the state budget.

3. Oklahoma's state budget and unit-level allocations were reasonable.

Western Farmers Electric Cooperative and Oklahoma Gas and Electric Company ("Oklahoma Petitioners") raise objections to both EPA's calculation of Oklahoma's budget and EPA's allocations of allowances to Oklahoma units. Indus. Br. 38-42. As explained below, neither allegation has merit because each misunderstands EPA's methodology at that step in the Rule.

First, Oklahoma Petitioners claim that EPA's budget-setting methodology at Step 3 produced an unrealistically low budget for Oklahoma. Petitioners claim EPA

relied on a “facially implausible” value in IPM’s baseline case, from which EPA determined the emission rate improvements available to Oklahoma. Indus. Br. 38.

Petitioners note that the baseline case projected Oklahoma’s 2017 emission rate to be 0.158 lbs/mmBtu when the rate measured in 2015 was 0.109 lbs/mmBtu. *Id.* 39.

Petitioners further note that EPA’s own adjusted historical rate of 0.107 lbs/mmBtu – the emission rate to which EPA applied the emission rate improvement delta determined using IPM – demonstrated that EPA understood that “known changes in the power sector” between 2015 and 2017 would reduce Oklahoma’s emission rate, not raise it. *Id.* Petitioners conclude that these facts demonstrate that the IPM baseline rate of 0.158 lbs/mmBtu was too high, somehow leading IPM to over-predict available emission rate improvements and unrealistically lowering Oklahoma’s budget. *Id.* 40.

EPA acknowledged that the IPM baseline value diverged from evidence that Oklahoma’s actual emission rate in 2017 would be far lower (as the adjusted 2015 historical rate reflects). But Oklahoma Petitioners’ conclusion that this divergence resulted in an Oklahoma budget that was arbitrary or capricious misunderstands – once again – EPA’s budget-setting methodology and the limited role played by the IPM projections. As explained *supra*, EPA’s budget-setting methodology was based in each state’s actual measured emissions. Here, that corresponded to Oklahoma’s adjusted historical 2015 emission rate – 0.107 lbs/mmBtu, which Petitioners do not dispute. EPA then relied on IPM modeling only to estimate how much Oklahoma

could improve its emission rate if it were to apply emission controls at a cost of up to \$1,400/ton. EPA did not impose upon Oklahoma the final emission rate projected in IPM's \$1,400/ton control case (i.e., 0.142 lbs/mmBtu); it only used the *delta* between IPM's baseline case and its control case (0.016 lbs/mmBtu), which was then applied back to Oklahoma's adjusted historical rate of 0.107 lbs/mmBtu. *See* Ozone TSD, App. E, Tab "Final Budget Calcs," row 38, columns AS-AX, EPA-HQ-OAR-2015-0500-0516, JA357.

Because the structural assumptions informing Oklahoma's initial rate of 0.158 lbs/mmBtu were a constant in both the baseline and control cases, the relative-rate methodology allowed EPA to assess Oklahoma's potential to improve its emission rate without endorsing the model's absolute baseline or control case rates. Oklahoma Petitioners present no evidence as to why the relative-rate method would have failed in this instance to generate an accurate delta between the baseline and control cases. And they fail to explain why a 0.016 lbs/mmBtu improvement in the emissions performance of Oklahoma's electric generating fleet is infeasible or otherwise arbitrary and capricious.²⁵

²⁵ Preliminary emissions data from the 2017 ozone season demonstrates that Oklahoma's budget was achievable: covered sources in the State emitted 11,043 tons compared to its budget of 11,641 tons. *See supra* note 18, JA1476; 81 Fed. Reg. at 74,508.

Western Farmers Electric Cooperative's ("Western Farmers") separately argues that EPA departed from its allocation methodology at Step 4 when it failed to consider U.S. Energy Information Administration ("EIA") data on Oklahoma units' past emissions when assessing preliminary allocations under the Rule. *See* Indus. Br. 40-42. This argument is contradicted by the record. In its allocation methodology, EPA explained that it would consider up to the last five years of a unit's measured data on heat input (reported to EPA's Clean Air Markets Division under 40 C.F.R. Pt. 75) when determining that unit's proportional share of state-wide heat input, and thus its share of the state budget. Allocation TSD at 6-7, JA259-60. Where *no* measured information from the last five years was reported to EPA, EPA explained that it would instead calculate a unit's average heat input based on EIA data, *id.*, which requires using general emission factors by fuel type to generate emissions estimates.²⁶ But EPA never proposed or finalized a methodology – as Western Farmers claims – in which it mixed available data from the two datasets together (e.g., filling in EIA data for an individual year where EPA data was unavailable) to produce a unit's average heat input. EPA applied its stated methodology in apportioning Oklahoma's budgeted allowances, so Western Farmers' argument is meritless.

In any case, this same methodology – the selection of which is due deference – was used in the original CSAPR. 81 Fed. Reg. at 74,564 (citing 76 Fed. Reg. at

²⁶ *See* Annual Electric Utility Data, EIA, available at: <https://www.eia.gov/electricity/data/eia923/>.

48,288-89). In both rules, EPA reasonably decided against averaging EIA and EPA data together where EPA data was available for some, but not all, of the five years in question because the two are distinct data sets with distinct approaches. As EPA explained in the original CSAPR, EPA relied exclusively on emissions data reported under Part 75 where some such data existed because this data is “quality-assured” and “represent the most technically superior data available to EPA.” 76 Fed. Reg. at 48,288. The fact that Western Farmers believes its units were disadvantaged is not a reasoned basis for overturning this technical conclusion. Indeed, the methodology Western Farmers proposes would simply disadvantage other units instead.²⁷

Notably, if Oklahoma or any other state wishes to alter the Rule’s allocations, the Rule, like the original CSAPR, allows them to do so through a SIP submission. 81 Fed. Reg. at 74,569. Consequently, Oklahoma is at liberty to reallocate its allowances should it agree that Western Farmers’ units should have more allowances and some other Oklahoma units should have fewer.²⁸

²⁷ See Proposed Unit Level Allocations Spreadsheet, Tab “Underlying Data,” rows 1984-1987, columns F-K, EPA-HQ-OAR-2015-0500-0102, JA246 (showing Oklahoma’s AES Shady Point unit would receive 29 fewer tons under Western Farmers’ approach).

²⁸ Preliminary data indicate the three referenced Anadarko units in fact emitted below their allocation in the 2017 ozone season; they were allocated 40 allowances and emitted 36 tons of NO_x. See *supra* note 18 (aggregating by “No Aggregation (Unit Level)” rather than “State”), JA1477.

4. Illinois's unit-level allocations were reasonable.

Prairie State Generating Company (“Prairie State”) makes two arguments alleging that EPA’s budget and allocations for units in Illinois were arbitrary. Neither contention is viable – not least because Prairie State confuses the separate methodologies for budget-setting at Step 3 and for allocation of allowances at Step 4.

First, Prairie State contends that its three highest heat inputs between 2011 and 2015 were “artificially low due to issues with its advanced technology.” *Indus. Br. 29.* Prairie State claims that because “EPA averaged those three amounts to determine reductions needed to achieve the state budgets and unit-level allocations,” these artificially low values disadvantaged Illinois and Prairie State. *Id.* Prairie State’s contention as to the state budget is incorrect. To set state budgets at Step 3, EPA considered only the state’s most recent measured data – from 2015 – not a three-year average as Prairie State suggests. 81 Fed. Reg. at 74,547. Prairie State states that it “began normal operations in 2014,” so, by Prairie State’s own admission, EPA’s reliance on their 2015 heat input data in the budget-setting process reasonably reflected the facility’s “normal operations.” *See Indus. Br. 28.* Oddly, Prairie State argues later in this section that “[a]lternatively, EPA should have used [Prairie State’s] 2015 heat input to determine Illinois’s budget” *Indus. Br. 30.* That is precisely what EPA did. Prairie State’s argument with regard to Illinois’s budget is, thus, meritless.

With respect to Prairie State's arguments regarding its unit-level allocation at Step 4, EPA notes initially that Prairie State was subject to the same basic methodology as every other existing unit, which EPA continued from the original CSAPR and which EPA re-affirmed to be fuel-neutral, control-neutral, transparent, and based on reliable data. 81 Fed. Reg. at 74,564. Nonetheless, Prairie State contends that EPA's allocation methodology unfairly treated Prairie State as an "existing unit" rather than a "new unit," when it had previously been defined as a new unit under the original CSAPR. Indus. Br. 30. Prairie State's contention is meritless on its face. The Rule – like the original CSAPR – classifies new and existing units based on the date when they commenced operations, with the cut-off date set to ensure that at least one full year of historical data is available to determine an "existing" unit's allocation. Allocation TSD at 6, JA259. Under the Rule, new units are those that commenced commercial operation on or after January 1, 2015, while existing units are those already operating as of that date. 81 Fed. Reg. at 74,564. Prairie State began generating in 2012, *see* Comment of Prairie State Generating Company at 4, EPA-HQ-OAR-2015-0500-0365, JA1280, so when the original CSAPR was promulgated in 2011, Prairie State had not yet commenced commercial operation and did not make that rule's January 1, 2010 cut-off for existing units. *See* 80 Fed. Reg. at 75,742. In contrast, by January 1, 2015, Prairie State was well into normal operations. There is, accordingly, no reasonable justification for why EPA would ignore Prairie State's actual generating status in order to treat it as a new unit.

Prairie State's associated contentions are likewise unsuccessful. The fact that Prairie State is already a "fully-controlled" unit with "advanced technology and emission controls" means that Illinois's budget was determined assuming Prairie State cannot do more to reduce emissions. By definition, EPA's budget-setting methodology identified only those *additional* emission reductions achievable at a marginal cost of \$1,400/ton; if Prairie State already successfully employs all emission reduction strategies available at or below that cost, then the state budget's emission rate delta would have reflected no additional reductions attributable to Prairie State. *See* 81 Fed. Reg. at 74,547.

Prairie State also contends that the Rule mishandled allowances allocated to retired units by allowing these units to retain their allowances through 2019, rather than allowing them to shift to "newer, lower-emitting [units]" like Prairie State. Indus. Br. 30. Prairie State's argument relies, once again, on the faulty premise that it could reasonably be considered a new unit. As an existing unit allocated allowances from the state's general budget, Prairie State would not be entitled to claim allowances reassigned from retired units to the new unit set-aside. 81 Fed. Reg. at 74,566. Prairie State *may* receive a proportional share of any *unused* allowances from the new unit set-aside, which are redistributed to existing units, but at that point the impact of the allocation methodology on Prairie State becomes speculative. *See id.* at 74,565; Allocation TSD at 5, JA258. In any case, EPA reasonably explained its decision in the Rule (as in the original CSAPR) to allocate allowances for a period of time to retiring

units in order to limit economic distortions that might otherwise arise from the Rule's implementation. *See id.* at 74,566. Accordingly, EPA's selected methodology was reasonable and should be upheld.

L. EPA's Evaluation of Costs Was Thorough and Reasonable.

State Petitioners' claim that EPA is required to conduct a formalized cost-benefit analysis and that EPA must conclude that the benefits of each FIP are commensurate with its costs merely repackages arguments that have been rejected by the Supreme Court and this Court. State Br. 14-17. The States and Mississippi Power also inaccurately complain that the rule imposes "costly" regulation without meaningful downwind benefits. State Br. 17-23; Indus. Br. 37-38. Once again, the Court should reject these arguments.

As explained below, the States' assertion that EPA must conduct a formal cost-benefit analysis lacks any statutory basis. Petitioners not only mischaracterize the cost-threshold analysis EPA performed, but they fail to recognize that both the Supreme Court and this Court have approved of this approach to apportioning responsibility for Good Neighbor reductions. And the Petitioners ignore the significant benefits that EPA detailed in the Regulatory Impact Analysis that accompanies the Rule.

1. No cost-benefit analysis is required by the Good Neighbor Provision.

The text of the Good Neighbor Provision does not direct States or EPA to conduct a cost-benefit analysis or otherwise consider costs when implementing the provision. Indeed, Petitioners do not point to any statutory basis that would compel EPA to undertake a formal cost-benefit analysis. State petitioners instead argue that *Michigan v. EPA*, — U.S. —, 135 S. Ct. 2699 (2015) (“*Michigan v. EPA*”), and *Michigan*, 213 F.3d 663 (“*Michigan*”), require a formal cost-benefit analysis, States Br. 15-17. Neither of these decisions supports such a requirement.

In the Supreme Court’s recent *Michigan v. EPA* decision, an EPA rule interpreting 42 U.S.C. § 7412(n)(1)(A) was challenged. That CAA section requires that EPA regulate hazardous emissions from power plants if it finds such regulation is “appropriate and necessary.” *Id.* § 7412(n)(1)(A). EPA had interpreted section 7412(n)(1)(A) to not require the consideration of costs when deciding whether to regulate such emissions. The Supreme Court held that the term “appropriate” was broad and all-encompassing, and therefore requires at least “some attention to cost.” *Michigan v. EPA*, 135 S. Ct. at 2706. The Court emphasized that it was not requiring the agency “to conduct a formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value.” *Id.* at 2711. The Court explained that “[i]t will be up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost.” *Id.*

Unlike the statutory provision at issue in *Michigan v. EPA*, the Good Neighbor Provision, 42 U.S.C. § 7410(a)(2)(D)(i)(I), does not include the term “appropriate” or a similar term. Petitioners have not pointed to language in the Good Neighbor Provision that requires at least “some attention to cost,” 135 S. Ct. at 2706, much less language that mandates a cost-benefit analysis. Moreover, even if *Michigan v. EPA* required a formal cost-benefit analysis, nothing in *Michigan v. EPA* purports to narrow the Court’s *EME Homer* decision interpreting the Good Neighbor Provision the previous year, which is directly relevant to Petitioners’ attack on EPA’s approach to quantifying emission reduction obligations, *contra* State Br. 16. There, the Court specifically considered whether the CAA dictated a particular approach to allocating Good Neighbor emission reductions, and concluded that Congress was silent as to any particular methodology for allocating emission reduction responsibility (e.g., proportionality, cost-basis, etc.). 134 S. Ct. at 1603-04.

Similarly, nothing in this Court’s 2000 *Michigan* decision, 213 F.3d 663, stands for the proposition that EPA must conduct a formal cost-benefit analysis, *contra* States. Br. 15. There, this Court considered challenges to the NO_x SIP Call, which used the same approach to considering cost-effective emission controls as the CSAPR Update. In response to arguments challenging EPA’s interpretation of the Good Neighbor Provision, this Court concluded that the term “significant” in the Good Neighbor Provision was ambiguous and that EPA’s approach, which weighed

multiple factors including costs but did not include a formal cost-benefit analysis, was reasonable. 213 F.3d at 677-78.

The crux of State Petitioners' cost-benefit argument is that EPA's methodology for apportioning emission reduction responsibility is insufficiently precise in accounting for specific upwind-to-downwind impacts. State Br. 14-23. But the Supreme Court in *EME Homer* and this Court in *Michigan* considered near-identical arguments and held that the Good Neighbor Provision does not require the fine-tuning sought by Petitioners. Indeed, as expanded upon below, the Supreme Court held that EPA's approach in CSAPR is reasonable and "makes good sense." *EME Homer*, 134 S. Ct. at 1607.

2. The Supreme Court and this Court have held that EPA's cost-threshold approach is reasonable.

EPA's interpretation and analysis of highly cost-effective emission controls under the Good Neighbor Provision is reasonable and deserves deference. Just like the original CSAPR rulemaking, EPA's evaluation of control costs and corresponding improvements played a critical role in selecting the level of control required of upwind states, and therefore the "amounts" of emissions in each state prohibited under the Good Neighbor Provision.

Contrary to the States' and Mississippi Power's assertions, State Br. 17-23; Indus. Br. 37-38, EPA did evaluate costs, emission levels, and air quality benefits of the various levels of control. At Step 3, EPA evaluated emission reductions available

from control strategies available at each cost threshold, as well as resulting downwind air quality improvements, and used this information to select the appropriate level of emission reductions that represents the amount of each state's contribution that would be considered "significant" or to "interfere with maintenance." *See* 81 Fed. Reg. at 74,549-54 ("knee-in-the-curve" discussion). Because ozone transport is a regional problem caused by the collective contribution of emissions from multiple upwind states to multiple downwind air quality problems, EPA evaluated the achievable emission reductions and air quality benefits on a regional, rather than state-by-state basis. EPA selected a uniform level of control that represented highly cost-effective control strategies for states linked to common air quality problems. *Id.*

The Supreme Court upheld this approach to selecting a uniform level of control in *EME Homer*, 134 S. Ct. 1584. The Supreme Court rejected the *EME Homer* *I* holding that the statute imposed a requirement of proportionality based on air quality impacts and instead held that consideration of collective contribution was rational in light of the nature of the "thorny causation problems" that must be addressed when regulating interstate transport of ozone pollution. *Id.* at 1603, 1605-07. The Court further held that EPA's use of cost to differentiate among similar upwind state contributions was entitled to deference. *Id.* at 1607. The Court specifically noted that EPA's use of costs "makes good sense" since EPA's approach is both efficient and equitable in allocating responsibility among multiple upwind states linked to a particular problem. *Id.*

Similarly, in *Michigan*, 213 F.3d 663, EPA's cost-threshold approach was affirmed as reasonable in response to nearly identical arguments – i.e., that EPA must consider the relative impact of upwind states when determining which states' emissions must be regulated. The *Michigan* petitioners complained that EPA was not adequately accounting for differences in upwind contributions and distances between the states. The Court rejected the idea that EPA was required to consider the relative downwind impacts of NO_x reduced in individual upwind states. *Id.* at 679. In other words, *Michigan* held that EPA is not required to engage in a fine-tuned state-by-state proportionality analysis, rejecting the argument that Petitioners advance here.

Petitioners' assertion that EPA did not rationally evaluate costs in relation to downwind benefits, States Br. 17-23; Indus. Br. 37-38, is entirely misplaced. EPA applied the cost-threshold approach affirmed in *EME Homer*, 134 S. Ct. at 1607, and determined that a uniform level of control stringency equivalent to a marginal cost of \$1,400/ton would provide highly cost-effective emission reductions for purposes of addressing downwind air quality problems. At this level, EPA calculated that the budgets would result in cumulative improvements at downwind receptors of over 5 ppb and over 52,000 tons of NO_x emission reductions. *See* "AQAT final calibrated" Spreadsheet, "Summary DVs" tab, JA342-45 (showing cumulative improvement of average design values of 5.4 ppb (cell O30), for an average of 0.28 ppb improvement per receptor (cell O28); cumulative improvement of maximum design values of 5.5

ppb (cell AC30), for an average of 0.29 ppb per receptor (cell AC28); and 52,100 tons of emission reductions (cell O32)).

Indeed, EPA's thorough analysis considered whether some states could make more emission reductions at the \$1,400/ton level than others. Wisconsin's available cost-effective emission reductions, for example, were found at proposal to be limited to 36 tons. 80 Fed. Reg. at 75,735 (Table VI.D-1). In light of the relatively lower level of available reductions, EPA requested comment on whether Wisconsin should be included in the final rule in order to also limit possible emission increases that could compromise downwind improvements made by other states. *See id.* at 75,738-39 ("The EPA proposes to update Wisconsin's emissions budgets because not doing so would mean that Wisconsin, which is found to contribute above 1% to downwind ozone problems, could increase emissions above its baseline case level."). EPA had used a similar approach in the original CSAPR where several states were included in that rule based on the reasonable concern that, absent any limitation, emissions could increase in neighboring states to undermine the effectiveness of the rule. *See* 76 Fed. Reg. at 48,263. The States simply ignore the air quality benefit of avoiding potential increases that could result if the state were excluded from the Rule (i.e., avoiding emission "leakage").

In the final Rule, EPA updated its analysis based on comments from Wisconsin and others,²⁹ and found that units in the state could still cost-effectively reduce 24 tons of NO_x emission³⁰ beyond the state's historic adjusted emissions. 81 Fed. Reg. at 74,538-39. Similarly, EPA found that each of the other states at issue here, Texas, Alabama, Ohio, and Arkansas, as well as Mississippi and Iowa (per Mississippi Power's and Cedar Fall Utilities' challenges),³¹ could achieve hundreds to thousands of tons of emission reductions at this control stringency. *Id.* at 74,553 (Table VI.E-2). There is no merit to the contention that EPA unreasonably applied its well-established cost-threshold allocation methodology, which the Supreme Court recently affirmed.

3. EPA reasonably evaluated the Rule's costs and benefits, and concluded that the benefits significantly outweigh the costs.

To the extent any cost-benefit analysis is required, Petitioners fail to acknowledge EPA's additional assessment of costs and benefits in the Regulatory

²⁹ Wisconsin's emission budget actually increased from proposal to final. *Compare* 80 Fed. Reg. at 75,739 (Table VI.E-1) (proposed budget of 5,561 tons) *with* 81 Fed. Reg. at 74,553 (Table VI.E-2) (final budget of 7,915 tons).

³⁰ Notably, Wisconsin's assurance level is actually higher than historical adjusted emissions. *Compare* 81 Fed. Reg. at 74,553 (Table VI.E-2) (adjusted 2015 emissions) *with id.* at 74,567 (Table VII.E-2) (assurance levels). This effectively means that regulated units in Wisconsin may not have to reduce those 24 tons if it's not cost-effective, so long as the units hold allowances.

³¹ Wyoming is not included here because EPA made no determination regarding the state's obligation under the Good Neighbor Provision, and took no final agency action in regard to western states, such as Wyoming, in the CSAPR Update. *See* 81 Fed. Reg. at 74,523; RTC at 143-44, JA489-90.

Impact Analysis that accompanied the Rule, performed pursuant to Executive Order 12,866.³² 81 Fed. Reg. at 74,573; *see also id.* at 74,510; RTC at 456-57, JA557-58; Regulatory Impact Analysis, EPA-HQ-OAR-2015-0500-0580, JA620-825 (“RIA”). Like the budget-setting methodology, the Regulatory Impact Analysis appropriately examined the costs and benefits at a regional scale. EPA estimated annualized net benefits of \$460-810 million for the CSAPR Update, with annualized costs at \$68 million and total benefits at \$530 to 880 million (with climate co-benefits of \$66 million and health benefits of \$460-810 million). Petitioners do not dispute these values.

Rather, Petitioners provide an incomplete and misleading discussion of costs and benefits associated with the CSAPR Update. When considering the “costs” associated with the Rule, it is essential to remember that it is a market-based allowance trading program. Thus, the Rule encourages innovative, cost-saving approaches to reducing pollution rather than mandating specific emission control equipment or techniques, and the actual costs of compliance are likely to be less than the cost threshold used to calculate the state emission budgets (\$1,400/ton). *See, e.g.*, 81 Fed. Reg. at 74,573 (cost analysis is “illustrative in nature” and utilities “determine their

³² Executive Order 12,866 “neither creates private rights, nor is an agency’s failure to comply with [this order] subject to judicial review.” *Helicopter Ass’n Int’l, Inc. v. FAA*, 722 F.3d 430, 439 (D.C. Cir. 2013). But as a part of the record for the challenged rulemaking, the Court may consider this analysis in assessing the reasonableness of EPA’s rulemaking. *See, e.g., Nat’l Min. Ass’n v. Mine Safety & Health Admin.*, 599 F.3d 662, 667 (D.C. Cir. 2010).

own compliance path”). The \$1,400/ton cost figure reflects the marginal cost, i.e., the cost of reducing the *last* ton, which will naturally be higher than the average cost-per-ton across units. *See id.* at 74,550. Thus, it is inaccurate to multiply a state’s emission reductions by the \$1,400 figure in order to calculate compliance costs for that state, *contra* Indus. Br. 37-38; State Br. 21.

Petitioners point to what they characterize as small improvements in ozone concentrations downwind, but they ignore the significant monetized health benefits of the CSAPR Update quantified in the Regulatory Impact Analysis. For example, the average benefit-per-ton for ozone due to reduced NO_x emissions is \$6,000/ton to \$9,000/ton. RIA at 5-19 (Table 5-2), JA753. These benefit values *far exceed* the \$1,400/ton marginal cost figure used to calculate the state emission budgets (and it follows, these benefits are even greater when compared to the average cost of reductions). EPA found the Rule had other benefits as well. 81 Fed. Reg. at 74,574-75.

“[C]ost-benefit analyses epitomize the types of decisions that are most appropriately entrusted to the expertise of an agency,” *Office of Comm’n of United Church of Christ v. FCC*, 707 F.2d 1413, 1440 (D.C. Cir. 1983), and courts therefore “review such . . . cost-benefit analys[es] deferentially.” *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012). Neither Wisconsin nor any other State attempts to dispute EPA’s Regulatory Impact Analysis, much less quantify any costs they are actually burdened with, or compare such costs to monetized benefits of

emission reductions in downwind areas. Compliance costs evaluated in the Regulatory Impact Analysis focused on the impacts of the Rule on electric generating units because those are the entities, rather than the states, that would bear the costs of implementing the emission control measures at their facilities. RIA at 4-19, JA718. To the extent the states implicitly suggest that they will incur costs associated with the allowance trading program, it is unclear what those costs might be, as they are not subject to regulation under the Rule, and the states do not have an active role in administering the FIPs. Moreover, the sources in these states have been under these trading programs for years, so any collateral costs are not new.

Finally, the underlying assumption in Petitioners' arguments – that they should not bear the costs of reducing emissions to benefit downwind areas – is counter to the foundational principle of the Good Neighbor Provision. Implicit in their arguments is their view that states like Wisconsin, Alabama, Arkansas, Iowa, Texas, Ohio, and Mississippi should not be responsible for reducing emissions from sources within their borders, even though EPA's analysis shows that emissions from sources in each of these states are linked to downwind areas that are struggling to attain or maintain the 2008 ozone NAAQS, and in many cases contribute several ppb to downwind air quality problems.³³ This is the fundamental problem that Congress

³³ Three of these states contribute several times the 1% contribution threshold of 0.75 ppb to individual downwind receptors. 81 Fed. Reg. at 74,537 (Ohio contributes a maximum of 1.83 ppb and 3.78 ppb to downwind nonattainment and maintenance

(Footnote Continued...)

sought to address through the Good Neighbor Provision – the lack of incentive for upwind states to reduce their own emissions when those emissions negatively affect other, downwind states. In the Good Neighbor Provision, Congress grappled with these externalized costs and collective action problems, and mandated that upwind states incur costs associated with reducing emissions that significantly impact attainment or maintenance of the NAAQS.³⁴ *See EME Homer*, 134 S. Ct. at 1603 (describing legislative history of the Good Neighbor Provision). Recognizing the difficult causation issues at play and Congress’s intent to require action by contributing upwind states, the Supreme Court has upheld EPA’s methodology for identifying “significant contributions,” *id.* at 1606-07. These upwind states must bear their equitable responsibility for reducing regional ozone as identified under the CSAPR Update, even where the benefits accrue to citizens in other states.

III. The States’ Procedural Challenges Lack Merit.

A. The Timing of EPA Action on SIP Submissions Is Not At Issue Here, But, Nonetheless, Was Reasonable.

State Petitioners’ argument that EPA unlawfully delayed acting on SIP submissions until it could develop information to justify denying them, State Br. 29-

receptors, respectively; Texas contributes a maximum of 2.18 ppb and 2.64 ppb to downwind nonattainment and maintenance receptors, respectively; Wisconsin contributes 2.52 ppb to the downwind maintenance receptor).

³⁴ Downwind areas must attain the NAAQS regardless of the results of any cost-benefit analysis. *See* 42 U.S.C. §§ 7410, 7511(b)(2) (providing for reclassification of areas that fail to attain by the applicable attainment date), § 7511(a) (outlining increasingly stringent control requirements for higher area classifications).

38, is nothing more than a collateral attack on separate rulemaking actions that are not reviewable in this Court. Of the states included in the CSAPR Update, only Texas has filed suit challenging the disapproval of its SIP, and that case is pending in the Fifth Circuit. *See Texas v. EPA*, Case. 16-60670 (5th Cir.). That is the appropriate forum for Texas to seek relief. No other state has filed a challenge to the SIP disapprovals in the appropriate regional court of appeals, and thus the remaining states have waived any claim that their SIP disapproval was improper.

If the Court were to reach this issue, there is no unlawful defect in the timing of EPA's promulgation of the CSAPR Update, and the States' suggestion that EPA deliberately delayed regulatory action is wholly unfounded. Indeed, EPA moved expeditiously to provide information on January 22, 2015, to states and the public related to Good Neighbor Provision requirements for the 2008 ozone NAAQS once the uncertainty cast by *EME Homer I* was resolved by the Supreme Court's reversal of that decision.³⁵ EPA proposed an update to the original CSAPR on December 3, 2015, less than 5 months after the *EME Homer* litigation was finally resolved on remand from the Supreme Court to this Court. EPA simultaneously was litigating in federal district court various issues related to the 2008 ozone NAAQS Good

³⁵ Stephen D. Page, *Information on the Interstate Transport "Good Neighbor" Provision for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) under Clean Air Act (CAA) Section 110(a)(2)(D)(i)(I)*, (Jan. 22, 2015), JA1417-32, also available at: <https://www.epa.gov/sites/production/files/2015-11/documents/goodneighborprovision2008naaqs.pdf>.

Neighbor Provision obligations, including suits seeking to compel EPA action on pending state plan submissions by a date certain, which were resolved in consent decrees requiring EPA action on the state plans by various dates in 2016. *Sierra Club v. McCarthy*, Case 3:15-cv-4328 (N.D. Cal.); *Sierra Club v. McCarthy*, Case 4:14-cv-3198 (N.D. Cal.).³⁶ EPA took final action on each of those state plans by the deadlines that had been negotiated to resolve the litigation. *See, e.g.*, Approval and Promulgation of Air Quality Implementation Plans; Texas; Interstate Transport of Air Pollution for the 2008 Ozone National Ambient Air Quality Standards, 81 Fed. Reg. 53,284 (Aug. 12, 2016). EPA then expeditiously finalized the CSAPR Update on October 26, 2016, consistent with EPA's obligation to promulgate FIPs addressing the deficiencies identified in the SIP disapprovals. 42 U.S.C. § 7410(c); *see also EME Homer*, 134 S. Ct. at 1600-01 ("EPA is not obliged to wait two years or postpone its action [to promulgate a FIP] even a single day."). In sum, EPA's promulgation of the CSAPR Update FIPs was both lawful and reasonable.

EPA cited multiple bases for disapproving each SIP action raised by Petitioners, in addition to the air quality modeling developed for the CSAPR Update. For example, in disapproving the Texas SIP submission, EPA found, among other

³⁶ As this Court noted in *In re Barr Laboratories, Inc.*, 930 F.2d 72, 74 (D.C. Cir. 1991), it is well-established that "the 'proper remedy' of a party seeking to enforce a statutory deadline is not to challenge the legitimacy of post-deadline agency actions, but 'to apply for a court order compelling the [agency] to act'" (quoting *Fort Worth Nat'l Corp. v. FSLIC*, 469 F.2d 47, 58 (5th Cir. 1972)).

things, that Texas failed to give independent significance to the “interfere with maintenance” clause of the Good Neighbor Provision, as required by this Court’s decision in *North Carolina*, and that Texas proposed to rely on emission reductions from CAIR, which was declared inadequate by this Court. 81 Fed. Reg. 53,284 (Aug. 12, 2016). EPA’s disapprovals of SIP submissions from Indiana, Louisiana, New York, Ohio, and Wisconsin explained how each of those submissions had similarly independent failings. *See* 81 Fed. Reg. 38,957 (June 15, 2016) (Indiana); 81 Fed. Reg. 53,308 (Aug. 12, 2016) (Louisiana); 81 Fed. Reg. 58,849 (Aug. 26, 2016) (New York); 81 Fed. Reg. 38,957 (June 15, 2016) (Ohio); 81 Fed. Reg. 53,309 (Aug. 12, 2016) (Wisconsin).

Nothing in the statute prevents states from submitting additional information to support SIPs or EPA from considering additional information that becomes available. Indeed, EPA routinely works with states to bolster otherwise deficient SIP submissions with additional information either developed by EPA or subsequently submitted by the state. *See, e.g.*, 76 Fed. Reg. 69,896, 69,900 (Nov. 9, 2011) (following California’s submission of supplemental technical analysis, EPA approved aspect of SIP revision that EPA previously proposed to disapprove); 76 Fed. Reg. 53,638 (Aug. 29, 2011) (same for Delaware); 69 Fed. Reg. 76,848, 76,852 (Dec. 23, 2004) (approving NO_x SIP Call SIP based on supplemental submission addressing deficiencies identified in prior conditional SIP approval); *cf.* 42 U.S.C. § 7410(c) (permitting states to submit a SIP before a FIP is promulgated). If EPA could not

evaluate additional information in acting on SIP submissions, EPA would be forced to disapprove more submissions based on inadequate analyses or support. *See* 80 Fed. Reg. 72,937, 72,939 (Nov. 23, 2015) (proposing to approve Good Neighbor SIPs for Colorado, Montana, North Dakota, and South Dakota based, in part, on the results of EPA's air quality modeling while noting deficiencies in state's technical analyses); 81 Fed. Reg. 7706 (Feb. 16, 2016) (finalizing approval of same); 80 Fed. Reg. 70,721 (Nov. 16, 2015) & 81 Fed. Reg. 1122 (Jan. 11, 2016) (similar proposed and final for Nebraska). It would make no sense to allow EPA to consider additional information for approvals, but to force it to ignore additional information for potential disapprovals, as the States' argument suggests.

Petitioners' contention that 42 U.S.C. § 7410(k)(5) and (k)(6) are the proper vehicles to address a delayed action on a pending SIP submission, State Br. 35-37, is irrational and lacks statutory support. The language and context of these subsections makes clear that section 7410(k)(5) and (k)(6) provide tools for addressing previously-approved SIPs – either under (k)(5), through a call by EPA to revise that plan, or under (k)(6), to revise an error made by EPA in approving that plan. A requirement that EPA approve a SIP that EPA knows to be deficient only to initiate additional administrative steps to revise that SIP would only delay, instead of advance, the Good Neighbor emission reductions necessary to address air quality problems in downwind areas. Notably, this is a variation on an argument that states already raised and lost in *Michigan*, 213 F.3d at 679, when states challenged the NO_x SIP Call. As the court

noted there, this argument is nothing more than an attempt to install an “escape hatch” into the sequenced timeframes that Congress set out in the CAA. *Id.*

B. The Court Lacks Jurisdiction Over Wyoming’s Western State Modeling Argument.

In another collateral attack, Wyoming argues that EPA violated the Administrative Procedure Act by failing to provide notice to western states that its modeling for the CSAPR Update would be used as the basis for other rulemakings applicable to western states. States Br. 41-43. The Rule, however, explicitly states that EPA was taking no action regarding western states. 81 Fed. Reg. at 74,523; RTC at 143-44, JA489-90. Nor did EPA conclude that the modeling would or would not apply in the west, or address what framework EPA would use to evaluate interstate transport in the west, in the Rule. *See generally id.* Rather, EPA took separate, individual actions on western state SIP submissions, which are reviewable in the applicable regional courts of appeals, including the single action that Wyoming claims affected it, State Br. 43. In proposing to disapprove the Wyoming SIP submission, EPA invited comment on the modeling that Wyoming seeks to dispute here, including application of the 1% contribution threshold, 81 Fed. Reg. 81,712 (Nov. 18, 2016), and EPA responded to comments about those issues when it finalized the disapproval, 82 Fed. Reg. 9142 (Feb. 3, 2017). Wyoming’s alleged injury is not traceable to the CSAPR Update nor could it be redressed in this petition.

Accordingly, Wyoming lacks standing and the Court lacks jurisdiction over this claim.³⁷

Further, Wyoming's assertion that the proposed CSAPR Update led western states to believe EPA would not apply the Rule's modeling in the west, State. Br. 42-43, is based on a mischaracterization of EPA's statements. EPA did not, at proposal or final rule, indicate that the CSAPR Update modeling would not be considered when analyzing the Good Neighbor obligations of western states. In fact, EPA acknowledged that the data developed in the course of the CSAPR Update rulemaking may be relevant to Good Neighbor SIPs in the west. 81 Fed. Reg. at 74,523 ("The EPA notes that analyses developed to support this rule, including air quality modeling and the EPA's assessment of EGU NO_x mitigation potential, contain data that can be useful for western states in developing SIPs."). EPA simply indicated it would consider whether other factors should affect EPA's action on the SIPs. *Id.*; RTC at 143-44, JA489-90. In all cases, western states and other interested stakeholders were provided with the opportunity to comment on the appropriateness of relying on such data in the course of EPA's action on individual SIPs from western states. *See, e.g.*, 81 Fed. Reg. 7706 (finalizing approvals of 2008 ozone NAAQS Good Neighbor SIPs for Colorado, Montana, North Dakota, and South Dakota after

³⁷ Like the SIP disapprovals addressed *supra* in Argument III.A, EPA identified other flaws in Wyoming's SIP submission, independent of the modeling. 82 Fed. Reg. 9142. Wyoming has separately challenged its SIP disapproval in the 10th Circuit and that case remains pending. *Wyoming v. EPA*, Case 17-9514 (10th Cir.).

soliciting comments); 80 Fed. Reg. 79,266 (Dec. 21, 2015) (same for Oregon); 80 Fed. Reg. 78,981 (Dec. 18, 2015) (same for Idaho). Thus, even if the Court had jurisdiction to consider this argument, there is no merit to Wyoming's notice argument.

C. The CSAPR Update Final Rule Preamble Does Not Conflict with Statements in an EPA Brief Addressing a Different CAA Rulemaking.

The States' assertion that EPA engaged in an arbitrary "bait-and switch" relating to statements in the CSAPR Update preamble about the nature of the Rule as a partial remedy for the States' 2008 ozone NAAQS Good Neighbor obligations and statements in EPA's brief defending the 2015 ozone NAAQS, State Br. 44-47, wholly lacks merit. As an initial matter, the States' attempt to dispute statements made in EPA's response brief defending the 2015 ozone NAAQS is irrelevant to the lawfulness of the CSAPR Update since that is a different standard than the 2008 ozone standard at issue in the Rule. To the extent this argument is an attack on the 2015 ozone NAAQS rule, 80 Fed. Reg. 65,292 (Oct. 26, 2015), it is an improper, collateral attack on a separate agency action, which is already under judicial review in this Court (*Murray Energy Corp. v. EPA*, Case 15-1385 (D.C. Cir.) (lead case)).

Moreover, there is no inconsistency between EPA's statements in the CSAPR Update and the *Murray Energy* brief (Case 15-1385 (D.C. Cir.), Doc. 1637734). EPA discussed the Good Neighbor Provision in the 2015 ozone NAAQS brief in response to an argument presented by the state petitioners there (including Wisconsin) that any

pollution not emitted in a given state should be disregarded as “background ozone” for the purposes of ozone designations. But EPA said nothing about the specific regulations that EPA has promulgated or will promulgate under the Good Neighbor Provision. Nowhere in the final notice promulgating the 2015 ozone NAAQS, or in EPA’s brief defending that action, did EPA promise that the Good Neighbor Provision or regulations promulgated thereunder would eliminate all interstate transport of ozone, as State Petitioners imply, State Br. 44. The States are conflating two distinct issues. In the 2015 ozone NAAQS case, they argued that EPA should have treated interstate manmade emissions as background ozone and therefore set the standards higher to account for those emissions; here, they seem to dispute the potential partial remedy nature of the CSAPR Update. To the extent that the States challenge EPA’s promulgation of a partial remedy, as explained *supra* Argument I, there is no merit to the assertion that EPA lacks authority or unreasonably promulgated a partial remedy to expeditiously address 2008 ozone NAAQS Good Neighbor emission reductions.

CONCLUSION

The petitions for review should be denied.

Respectfully submitted,

DATED: April 9, 2018

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CERTIFICATE OF COMPLIANCE

I hereby certify that this brief complies with the requirements of Fed. R. App. P. 32(a)(5) and (6) because it has been prepared in 14-point Garamond, a proportionally spaced font.

I further certify pursuant to Fed. R. App. P. 32(f) and (g) that this brief contains 29,720 words, excluding exempted parts of the brief, according to the count of Microsoft Word, and that this brief complies with the type-volume limitation of 30,000 words set forth in the Court's Order of September 6, 2017 (ECF No. 1691655).

/s/ Amy J. Dona
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CERTIFICATE OF SERVICE

I hereby certify that on April 9, 2018, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit using the appellate CM/ECF system.

The participants in the case are registered CM/ECF users and service will be accomplished by the appellate CM/ECF system.

/s/ Amy J. Dona

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United States Code Annotated
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)

42 U.S.C.A. § 7401

§ 7401. Congressional findings and declaration of purpose

Currentness

(a) Findings

The Congress finds--

- (1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;
- (2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;
- (3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and
- (4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.

(b) Declaration

The purposes of this subchapter are--

- (1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;
- (2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

(c) Pollution prevention

A primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 101, formerly § 1, as added Pub.L. 88-206, § 1, Dec. 17, 1963, 77 Stat. 392, and renumbered § 101 and amended Pub.L. 89-272, Title I, § 101(2), (3), Oct. 20, 1965, 79 Stat. 992; Pub.L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 485; Pub.L. 101-549, Title I, § 108(k), Nov. 15, 1990, 104 Stat. 2468.)

42 U.S.C.A. § 7401, 42 USCA § 7401

Current through P.L. 115-90. Also includes P.L. 115-92, 115-94, and 115-95. Title 26 current through 115-96.

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§ 7412. Hazardous air pollutants, 42 U.S.C.A. § 7412

Within 3 years of November 15, 1990, and biennially thereafter, the Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall submit to the Congress a report on the results of any monitoring, studies, and investigations conducted pursuant to this subsection. Such report shall include, at a minimum, an assessment of--

(A) the contribution of atmospheric deposition to pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(B) the environmental and public health effects of any pollution which is attributable to atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(C) the source or sources of any pollution to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters which is attributable to atmospheric deposition;

(D) whether pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain or coastal waters cause or contribute to exceedances of drinking water standards pursuant to the Safe Drinking Water Act [42 U.S.C.A. § 300f et seq.] or water quality standards pursuant to the Federal Water Pollution Control Act [33 U.S.C.A. § 1251 et seq.] or, with respect to the Great Lakes, exceedances of the specific objectives of the Great Lakes Water Quality Agreement; and

(E) a description of any revisions of the requirements, standards, and limitations pursuant to this chapter and other applicable Federal laws as are necessary to assure protection of human health and the environment.

(6) Additional regulation

As part of the report to Congress, the Administrator shall determine whether the other provisions of this section are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects, including such effects resulting from indirect exposure pathways, associated with atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters of hazardous air pollutants (and their atmospheric transformation products). The Administrator shall take into consideration the tendency of such pollutants to bioaccumulate. Within 5 years after November 15, 1990, the Administrator shall, based on such report and determination, promulgate, in accordance with this section, such further emission standards or control measures as may be necessary and appropriate to prevent such effects, including effects due to bioaccumulation and indirect exposure pathways. Any requirements promulgated pursuant to this paragraph with respect to coastal waters shall only apply to the coastal waters of the States which are subject to [section 7627\(a\)](#) of this title.

(n) Other provisions

(1) Electric utility steam generating units

(A) The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) of this section after imposition of the requirements of this chapter. The Administrator shall report the results of this study to the

Congress within 3 years after November 15, 1990. The Administrator shall develop and describe in the Administrator's report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.

(B) The Administrator shall conduct, and transmit to the Congress not later than 4 years after November 15, 1990, a study of mercury emissions from electric utility steam generating units, municipal waste combustion units, and other sources, including area sources. Such study shall consider the rate and mass of such emissions, the health and environmental effects of such emissions, technologies which are available to control such emissions, and the costs of such technologies.

(C) The National Institute of Environmental Health Sciences shall conduct, and transmit to the Congress not later than 3 years after November 15, 1990, a study to determine the threshold level of mercury exposure below which adverse human health effects are not expected to occur. Such study shall include a threshold for mercury concentrations in the tissue of fish which may be consumed (including consumption by sensitive populations) without adverse effects to public health.

(2) Coke oven production technology study

(A) The Secretary of the Department of Energy and the Administrator shall jointly undertake a 6-year study to assess coke oven production emission control technologies and to assist in the development and commercialization of technically practicable and economically viable control technologies which have the potential to significantly reduce emissions of hazardous air pollutants from coke oven production facilities. In identifying control technologies, the Secretary and the Administrator shall consider the range of existing coke oven operations and battery design and the availability of sources of materials for such coke ovens as well as alternatives to existing coke oven production design.

(B) The Secretary and the Administrator are authorized to enter into agreements with persons who propose to develop, install and operate coke production emission control technologies which have the potential for significant emissions reductions of hazardous air pollutants provided that Federal funds shall not exceed 50 per centum of the cost of any project assisted pursuant to this paragraph.

(C) On completion of the study, the Secretary shall submit to Congress a report on the results of the study and shall make recommendations to the Administrator identifying practicable and economically viable control technologies for coke oven production facilities to reduce residual risks remaining after implementation of the standard under subsection (d) of this section.

(D) There are authorized to be appropriated \$5,000,000 for each of the fiscal years 1992 through 1997 to carry out the program authorized by this paragraph.

(3) Publicly owned treatment works

The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial,

commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air pollutants and process or product substitutions or limitations that may be effective in reducing such emissions. The Administrator may prescribe uniform sampling, modeling and risk assessment methods for use in implementing this subsection.

(4) Oil and gas wells; pipeline facilities

(A) Notwithstanding the provisions of subsection (a) of this section, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources, and in the case of any oil or gas exploration or production well (with its associated equipment), such emissions shall not be aggregated for any purpose under this section.

(B) The Administrator shall not list oil and gas production wells (with its associated equipment) as an area source category under subsection (c) of this section, except that the Administrator may establish an area source category for oil and gas production wells located in any metropolitan statistical area or consolidated metropolitan statistical area with a population in excess of 1 million, if the Administrator determines that emissions of hazardous air pollutants from such wells present more than a negligible risk of adverse effects to public health.

(5) Hydrogen sulfide

The Administrator is directed to assess the hazards to public health and the environment resulting from the emission of hydrogen sulfide associated with the extraction of oil and natural gas resources. To the extent practicable, the assessment shall build upon and not duplicate work conducted for an assessment pursuant to section 8002(m) of the Solid Waste Disposal Act [42 U.S.C.A. § 6982(m)] and shall reflect consultation with the States. The assessment shall include a review of existing State and industry control standards, techniques and enforcement. The Administrator shall report to the Congress within 24 months after November 15, 1990, with the findings of such assessment, together with any recommendations, and shall, as appropriate, develop and implement a control strategy for emissions of hydrogen sulfide to protect human health and the environment, based on the findings of such assessment, using authorities under this chapter including sections³ 7411 of this title and this section.

(6) Hydrofluoric acid

Not later than 2 years after November 15, 1990, the Administrator shall, for those regions of the country which do not have comprehensive health and safety regulations with respect to hydrofluoric acid, complete a study of the potential hazards of hydrofluoric acid and the uses of hydrofluoric acid in industrial and commercial applications to public health and the environment considering a range of events including worst-case accidental releases and shall make recommendations to the Congress for the reduction of such hazards, if appropriate.

(7) RCRA facilities

In the case of any category or subcategory of sources the air emissions of which are regulated under subtitle C of the Solid Waste Disposal Act [42 U.S.C.A. § 6921 et seq.], the Administrator shall take into account any regulations of such emissions which are promulgated under such subtitle and shall, to the maximum extent practicable and consistent with the provisions of this section, ensure that the requirements of such subtitle and this section are consistent.

(o) National Academy of Sciences study

(1) Request of the Academy

Within 3 months of November 15, 1990, the Administrator shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of--

(A) risk assessment methodology used by the Environmental Protection Agency to determine the carcinogenic risk associated with exposure to hazardous air pollutants from source categories and subcategories subject to the requirements of this section; and

(B) improvements in such methodology.

(2) Elements to be studied

In conducting such review, the National Academy of Sciences should consider, but not be limited to, the following--

(A) the techniques used for estimating and describing the carcinogenic potency to humans of hazardous air pollutants; and

(B) the techniques used for estimating exposure to hazardous air pollutants (for hypothetical and actual maximally exposed individuals as well as other exposed individuals).

(3) Other health effects of concern

To the extent practicable, the Academy shall evaluate and report on the methodology for assessing the risk of adverse human health effects other than cancer for which safe thresholds of exposure may not exist, including, but not limited to, inheritable genetic mutations, birth defects, and reproductive dysfunctions.

(4) Report

A report on the results of such review shall be submitted to the Senate Committee on Environment and Public Works, the House Committee on Energy and Commerce, the Risk Assessment and Management Commission established by section 303 of the Clean Air Act Amendments of 1990 and the Administrator not later than 30 months after November 15, 1990.

(5) Assistance

United States Code Annotated

Title 42. The Public Health and Welfare

Chapter 85. Air Pollution Prevention and Control (Refs & Annos)

Subchapter I. Programs and Activities

Part D. Plan Requirements for Nonattainment Areas

Subpart 1. Nonattainment Areas in General (Refs & Annos)

42 U.S.C.A. § 7501

§ 7501. Definitions

Currentness

For the purpose of this part--

(1) Reasonable further progress

The term “reasonable further progress” means such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date.

(2) Nonattainment area

The term “nonattainment area” means, for any air pollutant, an area which is designated “nonattainment” with respect to that pollutant within the meaning of [section 7407\(d\)](#) of this title.

(3) The term “lowest achievable emission rate” means for any source, that rate of emissions which reflects--

(A) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or

(B) the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

In no event shall the application of this term permit a proposed new or modified source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance.

(4) The terms “modifications” and “modified” mean the same as the term “modification” as used in [section 7411\(a\)](#) of this title.**CREDIT(S)**

§ 7501. Definitions, 42 USCA § 7501

(July 14, 1955, c. 360, Title I, § 171, as added Pub.L. 95-95, Title I, § 129(b), Aug. 7, 1977, 91 Stat. 746; amended Pub.L. 101-549, Title I, § 102(a)(2), Nov. 15, 1990, 104 Stat. 2412.)

42 U.S.C.A. § 7501, 42 USCA § 7501

Current through P.L. 115-90. Also includes P.L. 115-92, 115-94, and 115-95. Title 26 current through 115-96.

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Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part D. Plan Requirements for Nonattainment Areas
Subpart 1. Nonattainment Areas in General (Refs & Annos)

42 U.S.C.A. § 7509

§ 7509. Sanctions and consequences of failure to attain

Currentness

(a) State failure

For any implementation plan or plan revision required under this part (or required in response to a finding of substantial inadequacy as described in [section 7410\(k\)\(5\)](#) of this title), if the Administrator--

(1) finds that a State has failed, for an area designated nonattainment under [section 7407\(d\)](#) of this title, to submit a plan, or to submit 1 or more of the elements (as determined by the Administrator) required by the provisions of this chapter applicable to such an area, or has failed to make a submission for such an area that satisfies the minimum criteria established in relation to any such element under [section 7410\(k\)](#) of this title,

(2) disapproves a submission under [section 7410\(k\)](#) of this title, for an area designated nonattainment under [section 7407](#) of this title, based on the submission's failure to meet one or more of the elements required by the provisions of this chapter applicable to such an area,

(3)(A) determines that a State has failed to make any submission as may be required under this chapter, other than one described under paragraph (1) or (2), including an adequate maintenance plan, or has failed to make any submission, as may be required under this chapter, other than one described under paragraph (1) or (2), that satisfies the minimum criteria established in relation to such submission under [section 7410\(k\)\(1\)\(A\)](#) of this title, or

(B) disapproves in whole or in part a submission described under subparagraph (A), or

(4) finds that any requirement of an approved plan (or approved part of a plan) is not being implemented,

unless such deficiency has been corrected within 18 months after the finding, disapproval, or determination referred to in paragraphs (1), (2), (3), and (4), one of the sanctions referred to in subsection (b) of this section shall apply, as selected by the Administrator, until the Administrator determines that the State has come into compliance, except that if the Administrator finds a lack of good faith, sanctions under both paragraph (1) and paragraph (2) of subsection (b) of this section shall apply until the Administrator determines that the State has come into compliance. If the Administrator has selected one of such sanctions and the deficiency has not been corrected within 6 months thereafter, sanctions under both paragraph (1) and paragraph (2) of subsection (b) of this section shall apply until the Administrator determines that the State has come into compliance. In addition to any other sanction applicable as provided in this section, the

§ 7509. Sanctions and consequences of failure to attain, 42 USCA § 7509

Administrator may withhold all or part of the grants for support of air pollution planning and control programs that the Administrator may award under section 7405 of this title.

(b) Sanctions

The sanctions available to the Administrator as provided in subsection (a) of this section are as follows:

(1) Highway sanctions

(A) The Administrator may impose a prohibition, applicable to a nonattainment area, on the approval by the Secretary of Transportation of any projects or the awarding by the Secretary of any grants, under Title 23 other than projects or grants for safety where the Secretary determines, based on accident or other appropriate data submitted by the State, that the principal purpose of the project is an improvement in safety to resolve a demonstrated safety problem and likely will result in a significant reduction in, or avoidance of, accidents. Such prohibition shall become effective upon the selection by the Administrator of this sanction.

(B) In addition to safety, projects or grants that may be approved by the Secretary, notwithstanding the prohibition in subparagraph (A), are the following--

(i) capital programs for public transit;

(ii) construction or restriction of certain roads or lanes solely for the use of passenger buses or high occupancy vehicles;

(iii) planning for requirements for employers to reduce employee work-trip-related vehicle emissions;

(iv) highway ramp metering, traffic signalization, and related programs that improve traffic flow and achieve a net emission reduction;

(v) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit operations;

(vi) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use, through road use charges, tolls, parking surcharges, or other pricing mechanisms, vehicle restricted zones or periods, or vehicle registration programs;

(vii) programs for breakdown and accident scene management, nonrecurring congestion, and vehicle information systems, to reduce congestion and emissions; and

(viii) such other transportation-related programs as the Administrator, in consultation with the Secretary of Transportation, finds would improve air quality and would not encourage single occupancy vehicle capacity.

In considering such measures, the State should seek to ensure adequate access to downtown, other commercial, and residential areas, and avoid increasing or relocating emissions and congestion rather than reducing them.

(2) Offsets

In applying the emissions offset requirements of section 7503 of this title to new or modified sources or emissions units for which a permit is required under this part, the ratio of emission reductions to increased emissions shall be at least 2 to 1.

(c) Notice of failure to attain

(1) As expeditiously as practicable after the applicable attainment date for any nonattainment area, but not later than 6 months after such date, the Administrator shall determine, based on the area's air quality as of the attainment date, whether the area attained the standard by that date.

(2) Upon making the determination under paragraph (1), the Administrator shall publish a notice in the Federal Register containing such determination and identifying each area that the Administrator has determined to have failed to attain. The Administrator may revise or supplement such determination at any time based on more complete information or analysis concerning the area's air quality as of the attainment date.

(d) Consequences for failure to attain

(1) Within 1 year after the Administrator publishes the notice under subsection (c)(2) of this section (relating to notice of failure to attain), each State containing a nonattainment area shall submit a revision to the applicable implementation plan meeting the requirements of paragraph (2) of this subsection.

(2) The revision required under paragraph (1) shall meet the requirements of section 7410 of this title and section 7502 of this title. In addition, the revision shall include such additional measures as the Administrator may reasonably prescribe, including all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any nonair quality and other air quality-related health and environmental impacts.

(3) The attainment date applicable to the revision required under paragraph (1) shall be the same as provided in the provisions of section 7502(a)(2) of this title, except that in applying such provisions the phrase "from the date of the notice under section 7509(c)(2) of this title" shall be substituted for the phrase "from the date such area was designated nonattainment under section 7407(d) of this title" and for the phrase "from the date of designation as nonattainment".

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 179, as added Pub.L. 101-549, Title I, § 102(g), Nov. 15, 1990, 104 Stat. 2420.)

42 U.S.C.A. § 7509, 42 USCA § 7509

Current through P.L. 115-90. Also includes P.L. 115-92, 115-94, and 115-95. Title 26 current through 115-96.

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United States Code Annotated

Title 42. The Public Health and Welfare

Chapter 85. Air Pollution Prevention and Control (Refs & Annos)

Subchapter III. General Provisions

42 U.S.C.A. § 7604

§ 7604. Citizen suits

Currentness

(a) Authority to bring civil action; jurisdiction

Except as provided in subsection (b) of this section, any person may commence a civil action on his own behalf--

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of (A) an emission standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation,

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator, or

(3) against any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment) or who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of any condition of such permit.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an emission standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties (except for actions under paragraph (2)). The district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed, except that an action to compel agency action referred to in [section 7607\(b\)](#) of this title which is unreasonably delayed may only be filed in a United States District Court within the circuit in which such action would be reviewable under [section 7607\(b\)](#) of this title. In any such action for unreasonable delay, notice to the entities referred to in subsection (b)(1)(A) of this section shall be provided 180 days before commencing such action.

(b) Notice

No action may be commenced--

(1) under subsection (a)(1) of this section--

(A) prior to 60 days after the plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in a court of the United States or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any person may intervene as a matter of right.¹

(2) under subsection (a)(2) of this section prior to 60 days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of [section 7412\(i\)\(3\)\(A\)](#) or [\(f\)\(4\)](#) of this title or an order issued by the Administrator pursuant to [section 7413\(a\)](#) of this title. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c) Venue; intervention by Administrator; service of complaint; consent judgment

(1) Any action respecting a violation by a stationary source of an emission standard or limitation or an order respecting such standard or limitation may be brought only in the judicial district in which such source is located.

(2) In any action under this section, the Administrator, if not a party, may intervene as a matter of right at any time in the proceeding. A judgment in an action under this section to which the United States is not a party shall not, however, have any binding effect upon the United States.

(3) Whenever any action is brought under this section the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and on the Administrator. No consent judgment shall be entered in an action brought under this section in which the United States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator during which time the Government may submit its comments on the proposed consent judgment to the court and parties or may intervene as a matter of right.

(d) Award of costs; security

The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nonrestriction of other rights

Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief

against the Administrator or a State agency). Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State, local, or interstate authority from--

- (1) bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court, or
- (2) bringing any administrative enforcement action or obtaining any administrative remedy or sanction in any State or local administrative agency, department or instrumentality,

against the United States, any department, agency, or instrumentality thereof, or any officer, agent, or employee thereof under State or local law respecting control and abatement of air pollution. For provisions requiring compliance by the United States, departments, agencies, instrumentalities, officers, agents, and employees in the same manner as nongovernmental entities, see [section 7418](#) of this title.

(f) "Emission standard or limitation under this chapter" defined

For purposes of this section, the term "emission standard or limitation under this chapter" means--

- (1) a schedule or timetable of compliance, emission limitation, standard of performance or emission standard,
- (2) a control or prohibition respecting a motor vehicle fuel or fuel additive, or²
- (3) any condition or requirement of a permit under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment),³ [section 7419](#) of this title (relating to primary nonferrous smelter orders), any condition or requirement under an applicable implementation plan relating to transportation control measures, air quality maintenance plans, vehicle inspection and maintenance programs or vapor recovery requirements, [section 7545\(e\)](#) and (f) of this title (relating to fuels and fuel additives), [section 7491](#) of this title (relating to visibility protection), any condition or requirement under subchapter VI of this chapter (relating to ozone protection), or any requirement under [section 7411](#) or [7412](#) of this title (without regard to whether such requirement is expressed as an emission standard or otherwise);⁴ or
- (4) any other standard, limitation, or schedule established under any permit issued pursuant to subchapter V of this chapter or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations.⁵

which is in effect under this chapter (including a requirement applicable by reason of [section 7418](#) of this title) or under an applicable implementation plan.

(g) Penalty fund

(1) Penalties received under subsection (a) of this section shall be deposited in a special fund in the United States Treasury for licensing and other services. Amounts in such fund are authorized to be appropriated and shall remain available until expended, for use by the Administrator to finance air compliance and enforcement activities. The Administrator

shall annually report to the Congress about the sums deposited into the fund, the sources thereof, and the actual and proposed uses thereof.

(2) Notwithstanding paragraph (1) the court in any action under this subsection⁶ to apply civil penalties shall have discretion to order that such civil penalties, in lieu of being deposited in the fund referred to in paragraph (1), be used in beneficial mitigation projects which are consistent with this chapter and enhance the public health or the environment. The court shall obtain the view of the Administrator in exercising such discretion and selecting any such projects. The amount of any such payment in any such action shall not exceed \$100,000.

CREDIT(S)

(July 14, 1955, c. 360, Title III, § 304, as added Pub.L. 91-604, § 12(a), Dec. 31, 1970, 84 Stat. 1706; amended Pub.L. 95-95, Title III, § 303(a)-(c), Aug. 7, 1977, 91 Stat. 771, 772; Pub.L. 95-190, § 14(a)(77), (78), Nov. 16, 1977, 91 Stat. 1404; Pub.L. 101-549, Title III, § 302(f), Title VII, § 707(a)-(g), Nov. 15, 1990, 104 Stat. 2574, 2682, 2683.)

Footnotes

- 1 So in original. The period probably should be “, or”.
- 2 So in original. The word “or” probably should not appear.
- 3 So in original.
- 4 So in original. The semicolon probably should be comma.
- 5 So in original. The period probably should be a comma.
- 6 So in original. Probably should be “this section”.

42 U.S.C.A. § 7604, 42 USCA § 7604

Current through P.L. 115-90. Also includes P.L. 115-92, 115-94, and 115-95. Title 26 current through 115-96.

Computing 8-hour averages. Hourly average concentrations shall be reported in parts per million (ppm) to the third decimal place, with additional digits to the right of the third decimal place truncated. Running 8-hour averages shall be computed from the hourly O₃ concentration data for each hour of the year and shall be stored in the first, or start, hour of the 8-hour period. An 8-hour average shall be considered valid if at least 75% of the hourly averages for the 8-hour period are available. In the event that only 6 or 7 hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using 6 or 7 as the divisor. 8-hour periods with three or more missing hours shall be considered valid also, if, after substituting one-half the minimum detectable limit for the missing hourly concentrations, the 8-hour average concentration is greater than the level of the standard. The computed 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

Daily maximum 8-hour average concentrations. (a) There are 24 possible running 8-hour average O₃ concentrations for each calendar day during the O₃ monitoring season. The daily maximum 8-hour concentration for a given calendar day is the highest of the 24 possible 8-hour average concentrations computed for that day. This process is repeated, yielding a daily maximum 8-hour average O₃ concentration for each calendar day with ambient O₃ monitoring data. Because the 8-hour averages are recorded in the start hour, the daily maximum 8-hour concentrations from two consecutive days may have some hourly concentrations in common. Generally, overlapping daily maximum 8-hour averages are not likely, except in those non-urban monitoring locations with less pronounced diurnal variation in hourly concentrations.

(b) An O₃ monitoring day shall be counted as a valid day if valid 8-hour averages are available for at least 75% of possible hours in the day (i.e., at least 18 of the 24 averages). In the event that less than 75% of the 8-hour averages are available, a day shall also be counted as a valid day if the daily maximum 8-hour average concentration for that day is greater than the level of the standard.

2.2 Primary and Secondary Standard-related Summary Statistic

The standard-related summary statistic is the annual fourth-highest daily maximum 8-hour O₃ concentration, expressed in parts per million, averaged over three years. The 3-year average shall be computed using the three most recent, consecutive calendar years of monitoring data meeting the data completeness requirements described in this appendix. The computed 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

2.3 Comparisons with the Primary and Secondary Ozone Standards

(a) The primary and secondary O₃ ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm.

(b) This comparison shall be based on three consecutive, complete calendar years of air quality monitoring data. This requirement is met for the 3-year period at a monitoring site if daily maximum 8-hour average concentrations are available for at least 90% of the days within the O₃ monitoring season, on average, for the 3-year period, with a minimum data completeness requirement in any one year of at least 75% of the days within the O₃ monitoring season. When computing whether the minimum data completeness requirements have been met, meteorological or ambient data may be sufficient to demonstrate that meteorological conditions on missing days were not conducive to concentrations above the level of the standard. Missing days assumed less than the level of the standard are counted for the purpose of meeting the data completeness requirement, subject to the approval of the appropriate Regional Administrator.

(c) Years with concentrations greater than the level of the standard shall be included even if they have less than complete data. Thus, in computing the 3-year average fourth maximum concentration, calendar years with less than 75% data completeness shall be included in the computation if the 3-year average fourth-highest 8-hour concentration is greater than the level of the standard.

(d) Comparisons with the primary and secondary O₃ standards are demonstrated by examples 1 and 2 in paragraphs (d)(1) and (d)(2) respectively as follows:

Example 1—Ambient Monitoring Site Attaining the Primary and Secondary O₃ Standards

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004.....	100	0.092	0.090	0.085	0.079	0.078
2005.....	96	0.084	0.083	0.075	0.072	0.070
2006.....	98	0.080	0.079	0.077	0.076	0.060
Average....	98				0.075	

(1) As shown in Example 1, this monitoring site meets the primary and secondary O₃ standards because the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.075666 * * * ppm, truncated to 0.075 ppm) is less than or equal to 0.075 ppm. The data completeness requirement is also met because the average percent of days within the required monitoring season with valid ambient monitoring data is greater than 90%, and no single year has less than 75% data completeness. In Example 1, the individual 8-hour averages used to determine the annual fourth maximum have also been truncated to the third decimal place.

Example 2—Ambient Monitoring Site Failing to Meet the Primary and Secondary O₃ Standards

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004.....	96	0.105	0.103	0.103	0.103	0.102
2005.....	74	0.104	0.103	0.092	0.091	0.088
2006.....	98	0.103	0.101	0.101	0.095	0.094
Average....	89				0.096	

As shown in Example 2, the primary and secondary O₃ standards are not met for this monitoring site because the 3-year average of the fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.096333 * * * ppm, truncated to 0.096 ppm) is greater than 0.075 ppm, even though the data capture is less than 75% and the average data capture for

the 3 years is less than 90% within the required monitoring season. In Example 2, the individual 8-hour averages used to determine the annual fourth maximum have also been truncated to the third decimal place.

3. Design Values for Primary and Secondary Ambient Air Quality Standards for Ozone

The air quality design value at a monitoring site is defined as that concentration that when reduced to the level of the standard ensures that the site meets the standard. For a concentration-based standard, the air quality design value is simply the standard-related test statistic. Thus, for the primary and secondary standards, the 3-year average annual fourth-highest daily maximum 8-hour average O₃ concentration is also the air quality design value for the site.

Credits

[73 FR 16511, March 27, 2008]

SOURCE: 36 FR 22384, Nov. 25, 1971; 50 FR 25544, June 19, 1985; 63 FR 7274, Feb. 12, 1998 unless otherwise noted., unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401, et seq.

Current through April 5, 2018; 83 FR 14604.

End of Document

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(xiii) An indicator (“flag”) if the run is used to calculate the highest 3-run average NO_x emission rate at any load level.

(2) For each single-load or multiple-load appendix E test, record the following:

(i) The three-run average NO_x emission rate for each load level;

(ii) An indicator that the average NO_x emission rate is the highest NO_x average emission rate recorded at any load level of the test (if appropriate);

(iii) The default NO_x emission rate (highest three-run average NO_x emission rate at any load level);

(iv) An indicator that the add-on NO_x emission controls were operating or not operating during each run of the test;

(v) Parameter data indicating the use and efficacy of control equipment during the test; and

(vi) Indicator of whether the testing was done at base load, peak load or both (if appropriate); and

(vii) The default NO_x emission rate for peak load hours (if applicable).

(3) For each unit in a group of identical units qualifying for reduced testing under § 75.19(c)(1)(iv)(B), record the following data:

(i) The unique group identification code assigned to the group. This code must include the ORIS code of one of the units in the group;

(ii) The ORIS code or facility identification code for the unit;

(iii) The plant name of the facility at which the unit is located, consistent with the facility’s monitoring plan;

(iv) The identification code for the unit, consistent with the facility’s monitoring plan;

(v) A record of whether or not the unit underwent fuel and unit-specific testing for purposes of establishing a fuel and unit-specific NO_x emission rate for purposes of § 75.19;

(vi) The completion date of the fuel and unit-specific test performed for purposes of establishing a fuel and unit-specific NO_x emission rate for purposes of § 75.19;

(vii) The fuel and unit-specific NO_x default rate established for the group of identical units under § 75.19;

(viii) The type of fuel combusted for the units during testing and represented by the resulting default NO_x emission rate;

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resented by the resulting default NO_x emission rate;

(ix) The control status for the units during testing and represented by the resulting default NO_x emission rate;

(x) Documentation supporting the qualification of all units in the group for reduced testing, in accordance with the criteria established in § 75.19(c)(1)(iv)(B)(I);

(xi) Purpose of group tests;

(xii) On and after April 27, 2011, the number of tests for group; and

(xiii) On and after April 27, 2011, the number of units in group.

(4) On and after March 27, 2012, for all NO_x emission testing performed pursuant to § 75.19(c)(1)(iv), the owner or operator shall record in electronic format the following information as provided by the AETB:

(i) The name, telephone number and e-mail address of the Air Emission Testing Body;

(ii) The name of each on-site Qualified Individual, as defined in § 72.2 of this chapter;

(iii) For the reference method(s) that were performed, the date(s) that each on-site Qualified Individual took and passed the relevant qualification exam(s) required by ASTM D7036-04 (incorporated by reference, *see* § 75.6); and

(iv) The name and e-mail address of each qualification exam provider.

(e) *DAHS Verification*. For each DAHS (missing data and formula) verification that is required for initial certification, recertification, or for certain diagnostic testing of a monitoring system, record the date and hour that the DAHS verification is successfully completed. (This requirement only applies to units that report monitoring plan data in accordance with § 75.53(g) and (h).)

[64 FR 28614, May 26, 1999, as amended at 67 FR 40442, June 12, 2002; 70 FR 28683, May 18, 2005; 63 FR 4354, Jan. 24, 2008; 76 FR 17315, Mar. 28, 2011]

Subpart G—Reporting Requirements**§ 75.60 General provisions.**

(a) The designated representative for any affected unit subject to the requirements of this part shall comply with all reporting requirements in this

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section and with the signatory requirements of § 72.21 of this chapter for all submissions.

(b) *Submissions.* The designated representative shall submit all reports and petitions (except as provided in § 75.61) as follows:

(1) *Initial certifications.* The designated representative shall submit initial certification applications according to § 75.63.

(2) *Recertifications.* The designated representative shall submit recertification applications according to § 75.63.

(3) *Monitoring plans.* The designated representative shall submit monitoring plans according to § 75.62.

(4) *Electronic quarterly reports.* The designated representative shall submit electronic quarterly reports according to § 75.64.

(5) *Other petitions and communications.* The designated representative shall submit petitions, correspondence, application forms, designated representative signature, and petition-related test results in hardcopy to the Administrator. Additional petition requirements are specified in §§ 75.66 and 75.67.

(6) *Semiannual or annual RATA reports.* If requested in writing (or by electronic mail) by the applicable EPA Regional Office, appropriate State, and/or appropriate local air pollution control agency, the designated representative shall submit a hardcopy RATA report within 45 days after completing a required semiannual or annual RATA according to section 2.3.1 of appendix B to this part, or within 15 days of receiving the request, whichever is later. The designated representative shall report the hardcopy information required by § 75.59(a)(9) to the applicable EPA Regional Office, appropriate State, and/or appropriate local air pollution control agency that requested the RATA report.

(7) *Routine appendix E retest reports.* If requested in writing (or by electronic mail) by the applicable EPA Regional Office, appropriate State, and/or appropriate local air pollution control agency, the designated representative shall submit a hardcopy report within 45 days after completing a required periodic retest according to section 2.2 of appendix E to this part, or within 15 days of receiving the request, which-

ever is later. The designated representative shall report the hardcopy information required by § 75.59(b)(5) to the applicable EPA Regional Office, appropriate State, and/or appropriate local air pollution control agency that requested the hardcopy report.

(c) *Confidentiality of data.* The following provisions shall govern the confidentiality of information submitted under this part.

(1) All emission data reported in quarterly reports under § 75.64 shall remain public information.

(2) For information submitted under this part other than emission data submitted in quarterly reports, the designated representative must assert a claim of confidentiality at the time of submission for any information he or she wishes to have treated as confidential business information (CBI) under subpart B of part 2 of this chapter. Failure to assert a claim of confidentiality at the time of submission may result in disclosure of the information by EPA without further notice to the designated representative.

(3) Any claim of confidentiality for information submitted in quarterly reports under § 75.64 must include substantiation of the claim. Failure to provide substantiation may result in disclosure of the information by EPA without further notice.

(4) As provided under subpart B of part 2 of this chapter, EPA may review information submitted to determine whether it is entitled to confidential treatment even when confidentiality claims are initially received. The EPA will contact the designated representative as part of such a review process.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26538, May 17, 1995; 64 FR 28620, May 26, 1999; 67 FR 40442, June 12, 2002; 73 FR 4356, Jan. 24, 2008; 76 FR 17316, Mar. 28, 2011]

§ 75.61 Notifications.

(a) *Submission.* The designated representative for an affected unit (or owner or operator, as specified) shall submit notice to the Administrator, to the appropriate EPA Regional Office, and to the applicable State and local air pollution control agencies for the following purposes, as required by this part.

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(1) *Initial certification and recertification test notifications.* The owner or operator or designated representative for an affected unit shall submit written notification of initial certification tests and revised test dates as specified in §75.20 for continuous emission monitoring systems, for alternative monitoring systems under subpart E of this part, or for excepted monitoring systems under appendix E to this part, except as provided in paragraphs (a)(1)(iii), (a)(1)(iv) and (a)(4) of this section. The owner or operator shall also provide written notification of testing performed under §75.19(c)(1)(iv)(A) to establish fuel-and-unit-specific NO_x emission rates for low mass emissions units. Such notifications are not required, however, for initial certifications and recertifications of excepted monitoring systems under appendix D to this part.

(i) Notification of initial certification testing and full recertification. Initial certification test notifications and notifications of full recertification testing under §75.20(b)(2) shall be submitted not later than 21 days prior to the first scheduled day of certification or recertification testing. In emergency situations when full recertification testing is required following an uncontrollable failure of equipment that results in lost data, notice shall be sufficient if provided within 2 business days following the date when testing is scheduled. Testing may be performed on a date other than that already provided in a notice under this subparagraph as long as notice of the new date is provided either in writing or by telephone or other means at least 7 days prior to the original scheduled test date or the revised test date, whichever is earlier.

(ii) *Notification of certification retesting, and partial recertification testing.* For retesting required following a loss of certification under §75.20(a)(5) or for partial recertification testing required under §75.20(b)(2), notice of the date of any required RATA testing or any required retesting under section 2.3 in appendix E to this part shall be submitted either in writing or by telephone at least 7 days prior to the first scheduled day of testing; except that in emergency situations when testing is

required following an uncontrollable failure of equipment that results in lost data, notice shall be sufficient if provided within 2 business days following the date when testing is scheduled. Testing may be performed on a date other than that already provided in a notice under this subparagraph as long as notice of the new date is provided by telephone or other means at least 2 business days prior to the original scheduled test date or the revised test date, whichever is earlier.

(iii) *Repeat of testing without notice.* Notwithstanding the above notice requirements, the owner or operator may elect to repeat a certification or recertification test immediately, without advance notification, whenever the owner or operator has determined during the certification or recertification testing that a test was failed or must be aborted, or that a second test is necessary in order to attain a reduced relative accuracy test frequency.

(iv) *Waiver from notification requirements.* The Administrator, the appropriate EPA Regional Office, or the applicable State or local air pollution control agency may issue a waiver from the notification requirement of paragraph (a)(1)(i) of this section, for a unit or a group of units, for one or more recertification tests or other retests. The Administrator, the appropriate EPA Regional Office, or the applicable State or local air pollution control agency may also discontinue the waiver and reinstate the notification requirement of paragraph (a)(1)(ii) of this section for future recertification tests (or other retests) of a unit or a group of units.

(2) *New unit, newly affected unit, new stack, or new flue gas desulfurization system operation notification.* The designated representative for an affected unit shall submit written notification: For a new unit or a newly affected unit, of the planned date when a new unit or newly affected unit will commence commercial operation, or becomes affected, or, for new stack or flue gas desulfurization system, of the planned date when a new stack or flue gas desulfurization system will be completed and emissions will first exit to the atmosphere.

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(i) Notification of the planned date shall be submitted not later than 45 days prior to the date the unit commences commercial operation or becomes affected, or not later than 45 days prior to the date when a new stack or flue gas desulfurization system exhausts emissions to the atmosphere.

(ii) If the date when the unit commences commercial operation or becomes affected, or the date when the new stack or flue gas desulfurization system exhausts emissions to the atmosphere, whichever is applicable, changes from the planned date, a notification of the actual date shall be submitted not later than 7 days following: The date the unit commences commercial operation or becomes affected, or the date when a new stack or flue gas desulfurization system exhausts emissions to the atmosphere.

(3) *Unit shutdown and recommencement of commercial operation.* For an affected unit that will be shut down on the relevant compliance date specified in §75.4 or in a State or Federal pollutant mass emissions reduction program that adopts the monitoring and reporting requirements of this part, if the owner or operator is relying on the provisions in §75.4(d) to postpone certification testing, the designated representative for the unit shall submit notification of unit shutdown and recommencement of commercial operation as follows:

(i) For planned unit shutdowns (e.g., extended maintenance outages), written notification of the planned shutdown date shall be provided at least 21 days prior to the applicable compliance date, and written notification of the planned date of recommencement of commercial operation shall be provided at least 21 days in advance of unit restart. If the actual shutdown date or the actual date of recommencement of commercial operation differs from the planned date, written notice of the actual date shall be submitted no later than 7 days following the actual date of shutdown or of recommencement of commercial operation, as applicable;

(ii) For unplanned unit shutdowns (e.g., forced outages), written notification of the actual shutdown date shall be provided no more than 7 days after the shutdown, and written notification

of the planned date of recommencement of commercial operation shall be provided at least 21 days in advance of unit restart. If the actual date of recommencement of commercial operation differs from the expected date, written notice of the actual date shall be submitted no later than 7 days following the actual date of recommencement of commercial operation.

(4) *Use of backup fuels for appendix E procedures.* The designated representative for an affected oil-fired or gas-fired peaking unit that is using an excepted monitoring system under appendix E of this part and that is relying on the provisions in §75.4(f) to postpone testing of a fuel shall submit written notification of that fact no later than 45 days prior to the deadline in §75.4. The designated representative shall also submit a notification that such a fuel has been combusted no later than 7 days after the first date of combustion of any fuel for which testing has not been performed under appendix E after the deadline in §75.4. Such notice shall also include notice that testing under appendix E either was performed during the initial combustion or notice of the date that testing will be performed.

(5) *Periodic relative accuracy test audits, appendix E retests, and low mass emissions unit retests.* The owner or operator or designated representative of an affected unit shall submit written notice of the date of periodic relative accuracy testing performed under section 2.3.1 of appendix B to this part, of periodic retesting performed under section 2.2 of appendix E to this part, and of periodic retesting of low mass emissions units performed under §75.19(c)(1)(iv)(D), no later than 21 days prior to the first scheduled day of testing. Testing may be performed on a date other than that already provided in a notice under this subparagraph as long as notice of the new date is provided either in writing or by telephone or other means acceptable to the respective State agency or office of EPA, and the notice is provided as soon as practicable after the new testing date is known, but no later than twenty-four (24) hours in advance of the new date of testing.

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(i) Written notification under paragraph (a) (5) of this section may be provided either by mail or by facsimile. In addition, written notification may be provided by electronic mail, provided that the respective State agency or office of EPA agrees that this is an acceptable form of notification.

(ii) Notwithstanding the notice requirements under paragraph (a)(5) of this section, the owner or operator may elect to repeat a periodic relative accuracy test, appendix E retest, or low mass emissions unit retest immediately, without additional notification whenever the owner or operator has determined that a test was failed, or that a second test is necessary in order to attain a reduced relative accuracy test frequency.

(iii) *Waiver from notification requirements.* The Administrator, the appropriate EPA Regional Office, or the applicable State air pollution control agency may issue a waiver from the requirement of paragraph (a)(5) of this section to provide notice to the respective State agency or office of EPA for a unit or a group of units for one or more tests. The Administrator, the appropriate EPA Regional Office, or the applicable State air pollution control agency may also discontinue the waiver and reinstate the requirement of paragraph (a)(5) of this section to provide notice to the respective State agency or office of EPA for future tests for a unit or a group of units. In addition, if an observer from a State agency or EPA is present when a test is rescheduled, the observer may waive all notification requirements under paragraph (a)(5) of this section for the rescheduled test.

(6) *Notice of combustion of emergency fuel under appendix D or E.* The designated representative of an oil-fired unit or gas-fired unit using appendix D or E of this part shall, for each calendar quarter in which emergency fuel is combusted, provide notice of the combustion of the emergency fuel in the cover letter (or electronic equivalent) which transmits the next quarterly report submitted under §75.64. The notice shall specify the exact dates and hours during which the emergency fuel was combusted.

(7) *Long-term cold storage and re-commencement of commercial operation.* The designated representative for an affected unit that is placed into long-term cold storage that is relying on the provisions in § 75.4(d) or § 75.64(a), either to postpone certification testing or to discontinue the submittal of quarterly reports during the period of long-term cold storage, shall provide written notification of long-term cold storage status and recommencement of commercial operation as follows:

(i) Whenever an affected unit has been placed into long-term cold storage, written notification of the date and hour that the unit was shutdown and a statement from the designated representative stating that the shutdown is expected to last for at least two years from that date, in accordance with the definition for long-term cold storage of a unit as provided in §72.2 of this chapter.

(ii) Whenever an affected unit that has been placed into long-term cold storage is expected to resume operation, written notification shall be submitted 45 calendar days prior to the planned date of recommencement of commercial operation. If the actual date of recommencement of commercial operation differs from the expected date, written notice of the actual date shall be submitted no later than 7 days following the actual date of recommencement of commercial operation.

(8) *Certification deadline date for new or newly affected units.* The designated representative of a new or newly affected unit shall provide notification of the date on which the relevant deadline for initial certification is reached, either as provided in §75.4(b) or §75.4(c), or as specified in a State or Federal SO₂ or NO_x mass emission reduction program that incorporates by reference, or otherwise adopts, the monitoring, recordkeeping, and reporting requirements of subpart F, G, or H of this part. The notification shall be submitted no later than 7 calendar days after the applicable certification deadline is reached.

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(b) The owner or operator or designated representative shall submit notification of certification tests and recertification tests for continuous opacity monitoring systems as specified in § 75.20(c)(8) to the State or local air pollution control agency.

(c) If the Administrator determines that notification substantially similar to that required in this section is required by any other State or local agency, the owner or operator or designated representative may send the Administrator a copy of that notification to satisfy the requirements of this section, provided the ORISPL unit identification number(s) is denoted.

[60 FR 26538, May 17, 1995, as amended at 61 FR 25582, May 22, 1996; 61 FR 59162, Nov. 22, 1996; 64 FR 28620, May 26, 1999; 67 FR 40442, 40443, June 12, 2002; 73 FR 4356, Jan. 24, 2008; 76 FR 17316, Mar. 28, 2011]

§ 75.62 Monitoring plan submittals.

(a) *Submission*—(1) *Electronic*. Using the format specified in paragraph (c) of this section, the designated representative for an affected unit shall submit a complete, electronic, up-to-date monitoring plan file (except for hardcopy portions identified in paragraph (a)(2) of this section) to the Administrator as follows: no later than 21 days prior to the initial certification tests; at the time of each certification or recertification application submission; and (prior to or concurrent with) the submittal of the electronic quarterly report for a reporting quarter where an update of the electronic monitoring plan information is required, either under § 75.53(b) or elsewhere in this part.

(2) *Hardcopy*. The designated representative shall submit all of the hardcopy information required under § 75.53 to the appropriate EPA Regional Office and the appropriate State and/or local air pollution control agency prior to initial certification. Thereafter, the designated representative shall submit hardcopy information only if that portion of the monitoring plan is revised. The designated representative shall submit the required hardcopy information as follows: no later than 21 days prior to the initial certification test; with any certification or recertification application, if a hardcopy moni-

toring plan change is associated with the certification or recertification event; and within 30 days of any other event with which a hardcopy monitoring plan change is associated, pursuant to § 75.53(b). Electronic submittal of all monitoring plan information, including hardcopy portions, is permissible provided that a paper copy of the hardcopy portions can be furnished upon request.

(b) *Contents*. Monitoring plans shall contain the information specified in § 75.53 of this part.

(c) *Format*. The designated representative shall submit each monitoring plan in a format specified by the Administrator.

(d) On and after April 27, 2011, consistent with § 72.21 of this chapter, a hardcopy cover letter signed by the Designated Representative (DR) shall accompany each hardcopy monitoring plan submittal. The cover letter shall include the certification statement described in § 72.21(b) of this chapter, and shall be submitted to the applicable EPA Regional Office and to the appropriate State or local air pollution control agency. For electronic monitoring plan submittals to the Administrator, a cover letter is not required. However, at his or her discretion, the DR may include important explanatory text or comments with an electronic monitoring plan submittal, so long as the information is provided in an electronic format that is compatible with the other data required to be reported under this section.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26539, May 17, 1995; 64 FR 28621, May 26, 1999; 67 FR 40443, June 12, 2002; 73 FR 4356, Jan. 24, 2008; 76 FR 17316, Mar. 28, 2011]

§ 75.63 Initial certification or recertification application.

(a) *Submission*. The designated representative for an affected unit or a combustion source shall submit applications and reports as follows:

(1) *Initial certifications*. (1) For CEM systems or excepted monitoring systems under appendix D or E to this part, within 45 days after completing all initial certification tests, submit:

(A) To the Administrator, the electronic information required by paragraph (b)(1) of this section. Except for

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subpart E applications for alternative monitoring systems or unless specifically requested by the Administrator, do not submit a hardcopy of the test data and results to the Administrator.

(B) To the applicable EPA Regional Office and the appropriate State and/or local air pollution control agency, the hardcopy information required by paragraph (b)(2) of this section.

(i) For units for which the owner or operator is applying for certification approval of the optional excepted methodology under § 75.19 for low mass emissions units, submit, no later than 45 days prior to commencing use of the methodology:

(A) To the Administrator, the electronic low mass emission qualification information required by § 75.53(f)(5)(i) or § 75.53(h)(4)(i) (as applicable) and paragraph (b)(1)(i) of this section; and

(B) To the applicable EPA Regional Office and appropriate State and/or local air pollution control agency, the hardcopy information required by § 75.19(a)(2) and § 75.53(f)(5)(ii) or § 75.53(h)(4)(ii) (as applicable), the hardcopy results of any appendix E (of this part) tests or any CEMS data analysis used to derive a fuel-and-unit-specific default NO_x emission rate.

(2) *Recertifications and diagnostic testing.* (i) Within 45 days after completing all recertification tests under § 75.20(b), submit to the Administrator the electronic information required by paragraph (b)(1) of this section. Except for subpart E applications for alternative monitoring systems or unless specifically requested by the Administrator, do not submit a hardcopy of the test data and results to the Administrator.

(ii) Within 45 days after completing all recertification tests under § 75.20(b), submit the hardcopy information required by paragraph (b)(2) of this section to the applicable EPA Regional Office and the appropriate State and/or local air pollution control agency. The applicable EPA Regional Office or appropriate State or local air pollution control agency may waive the requirement to provide hardcopy recertification test and data results. The applicable EPA Regional Office or the appropriate State or local air pollution control agency may also discontinue the waiver and reinstate the require-

ment of this paragraph to provide a hardcopy report of the recertification test data and results.

(iii) Notwithstanding the requirements of paragraphs (a)(2)(i) and (a)(2)(ii) of this section, for an event for which the Administrator determines that only diagnostic tests (see § 75.20(b)) are required rather than recertification testing, no hardcopy submittal is required; however, the results of all diagnostic test(s) shall be submitted prior to or concurrent with the electronic quarterly report required under § 75.64. Notwithstanding the requirement of § 75.59(e), for DAHS (missing data and formula) verifications, no hardcopy submittal is required; the owner or operator shall keep these test results on-site in a format suitable for inspection.

(b) *Contents.* Each application for initial certification or recertification shall contain the following information, as applicable:

(1) *Electronic.* (i) A complete, up-to-date version of the electronic portion of the monitoring plan, according to § 75.53(e) and (f), in the format specified in § 75.62(c).

(ii) The results of the test(s) required by § 75.20, including the type of test conducted, testing date, information required by § 75.59, and the results of any failed tests that affect data validation.

(2) *Hardcopy.* (i) Any changed portions of the hardcopy monitoring plan information required under § 75.53(e) and (f). Electronic submittal of all monitoring plan information, including the hardcopy portions, is permissible, provided that a paper copy can be furnished upon request.

(ii) The results of the test(s) required by § 75.20, including the type of test conducted, testing date, information required by § 75.59(a)(9), and the results of any failed tests that affect data validation.

(iii) [Reserved]

(iv) Designated representative signature certifying the accuracy of the submission.

(c) *Format.* The electronic portion of each certification or recertification application shall be submitted in a format to be specified by the Administrator. The hardcopy test results shall

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be submitted in a format suitable for review and shall include the information in § 75.59(a)(9).

(d) Consistent with § 72.21 of this chapter, a hardcopy cover letter signed by the Designated Representative (DR) shall accompany the hardcopy portion of each certification or recertification application. The cover letter shall include the certification statement described in § 72.21(b) of this chapter, and shall be submitted to the applicable EPA Regional Office and to the appropriate State or local air pollution control agency. For the electronic portion of a certification or recertification application submitted to the Administrator, a cover letter is not required. However, at his or her discretion, the DR may include important explanatory text or comments with the electronic portion of a certification or recertification application, so long as the information is provided in an electronic format compatible with the other data required to be reported under this section.

[64 FR 28621, May 26, 1999, as amended at 67 FR 40443, June 12, 2002; 73 FR 4357, Jan. 24, 2008; 76 FR 17317, Mar. 28, 2011]

§ 75.64 Quarterly reports.

(a) *Electronic submission.* The designated representative for an affected unit shall electronically report the data and information in paragraphs (a), (b), and (c) of this section to the Administrator quarterly, beginning with the data from the earlier of the calendar quarter corresponding to the date of provisional certification or the calendar quarter corresponding to the relevant deadline for initial certification in § 75.4(a), (b), or (c). The initial quarterly report shall contain hourly data beginning with the hour of provisional certification or the hour corresponding to the relevant certification deadline, whichever is earlier. For an affected unit subject to § 75.4(d) that is shutdown on the relevant compliance date in § 75.4(a) or has been placed in long-term cold storage (as defined in § 72.2 of this chapter), quarterly reports are not required. In such cases, the owner or operator shall submit quarterly reports for the unit beginning with the data from the quarter in which the unit recommences commercial

operation (where the initial quarterly report contains hourly data beginning with the first hour of recommenced commercial operation of the unit). For units placed into long-term cold storage during a reporting quarter, the exemption from submitting quarterly reports begins with the calendar quarter following the date that the unit is placed into long-term cold storage. For any provisionally-certified monitoring system, § 75.20(a)(3) shall apply for initial certifications, and § 75.20(b)(5) shall apply for recertifications. Each electronic report must be submitted to the Administrator within 30 days following the end of each calendar quarter. Prior to January 1, 2008, each electronic report shall include for each affected unit (or group of units using a common stack), the information provided in paragraphs (a)(1), (a)(2), and (a)(8) through (a)(15) of this section. During the time period of January 1, 2008 to January 1, 2009, each electronic report shall include, either the information provided in paragraphs (a)(1), (a)(2), and (a)(8) through (a)(15) of this section or the information provided in paragraphs (a)(3) through (a)(15) of this section. On and after January 1, 2009, the owner or operator shall meet the requirements of paragraphs (a)(3) through (a)(15) of this section only. Each electronic report shall also include the date of report generation.

(1) Facility information:

(i) Identification, including:

(A) Facility/ORISPL number;

(B) Calendar quarter and year for the data contained in the report; and

(C) Version of the electronic data reporting format used for the report.

(ii) Location, including:

(A) Plant name and facility ID;

(B) EPA AIRS facility system ID;

(C) State facility ID;

(D) Source category/type;

(E) Primary SIC code;

(F) State postal abbreviation;

(G) County code; and

(H) Latitude and longitude.

(2) The information and hourly data required in § 75.53 and §§ 75.57 through 75.59, excluding the following:

(i) Descriptions of adjustments, corrective action, and maintenance;

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(ii) Information which is incompatible with electronic reporting (e.g., field data sheets, lab analyses, quality control plan);

(iii) Opacity data listed in or § 75.57(f), and in § 75.59(a)(8);

(iv) For units with SO₂ or NO_x add-on emission controls that do not elect to use the approved site-specific parametric monitoring procedures for calculation of substitute data, the information in § 75.58(b)(3);

(v) [Reserved]

(vi) Information required by § 75.57(h) concerning the causes of any missing data periods and the actions taken to cure such causes;

(vii) Hardcopy monitoring plan information required by § 75.53 and hardcopy test data and results required by § 75.59;

(viii) Records of flow monitor and moisture monitoring system polynomial equations, coefficients, or "K" factors required by § 75.59(a)(5)(vi) or § 75.59(a)(5)(vii);

(ix) Daily fuel sampling information required by § 75.58(c)(3)(i) for units using assumed values under appendix D;

(x) Information required by §§ 75.59(b)(1)(vi), (vii), (viii), (ix), and (xiii), and (b)(2)(iii) and (iv) concerning fuel flowmeter accuracy tests and transmitter/transducer accuracy tests;

(xi) Stratification test results required as part of the RATA supplementary records under § 75.59(a)(7);

(xii) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to problems unrelated to monitor performance; and

(xiii) Supplementary RATA information required under § 75.59(a)(7), except that:

(A) The applicable data elements under § 75.59(a)(7)(ii)(A) through (T) and under § 75.59(a)(7)(iii)(A) through (M) shall be reported for flow RATAs at circular or rectangular stacks (or ducts) in which angular compensation for yaw and/or pitch angles is used (i.e., Method 2F or 2G in appendices A-1 and A-2 to part 60 of this chapter), with or without wall effects adjustments;

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(B) The applicable data elements under § 75.59(a)(7)(ii)(A) through (T) and under § 75.59(a)(7)(iii)(A) through (M) shall be reported for any flow RATA run at a circular stack in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a wall effects adjustment factor is determined by direct measurement;

(C) The data under § 75.59(a)(7)(ii)(T) shall be reported for all flow RATAs at circular stacks in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a default wall effects adjustment factor is applied; and

(D) The data under § 75.59(a)(7)(ix)(A) through (F) shall be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a wall effects adjustment factor is applied.

(3) Facility identification information, including:

(i) Facility/ORISPL number;

(ii) Calendar quarter and year for the data contained in the report; and

(iii) Version of the electronic data reporting format used for the report.

(4) In accordance with § 75.62(a)(1), if any monitoring plan information required in § 75.53 requires an update, either under § 75.53(b) or elsewhere in this part, submission of the electronic monitoring plan update shall be completed prior to or concurrent with the submittal of the quarterly electronic data report for the appropriate quarter in which the update is required.

(5) The daily calibration error test and daily interference check information required in § 75.59(a)(1) and (a)(2) must always be included in the electronic quarterly emissions report. All other certification, quality assurance, and quality control information in § 75.59 that is not excluded from electronic reporting under paragraph (a)(2) or (a)(7) of this section shall be submitted separately, either prior to or concurrent with the submittal of the relevant electronic quarterly emissions report. However, reporting of the information in § 75.59(a)(9)(x) is not required until September 26, 2011, and reporting of the information in § 75.59(a)(15), (b)(6), and (d)(4) is not required until March 27, 2012.

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(6) The information and hourly data required in §§ 75.57 through 75.59, and daily calibration error test data, daily interference check, and off-line calibration demonstration information required in § 75.59(a)(1) and (2).

(7) Notwithstanding the requirements of paragraphs (a)(4) through (a)(6) of this section, the following information is excluded from electronic reporting:

(i) Descriptions of adjustments, corrective action, and maintenance;

(ii) Information which is incompatible with electronic reporting (e.g., field data sheets, lab analyses, quality control plan);

(iii) Opacity data listed in § 75.57(f), and in § 75.59(a)(8);

(iv) For units with SO₂ or NO_x add-on emission controls that do not elect to use the approved site-specific parametric monitoring procedures for calculation of substitute data, the information in § 75.58(b)(3);

(v) Information required by § 75.57(h) concerning the causes of any missing data periods and the actions taken to cure such causes;

(vi) Hardcopy monitoring plan information required by § 75.53 and hardcopy test data and results required by § 75.59;

(vii) Records of flow monitor and moisture monitoring system polynomial equations, coefficients, or "K" factors required by § 75.59(a)(5)(vi) or § 75.59(a)(5)(vii);

(viii) Daily fuel sampling information required by § 75.58(c)(3)(i) for units using assumed values under appendix D of this part;

(ix) Information required by §§ 75.59(b)(1)(vi), (vii), (viii), (ix), and (xiii), and (b)(2)(iii) and (iv) concerning fuel flowmeter accuracy tests and transmitter/transducer accuracy tests;

(x) Stratification test results required as part of the RATA supplementary records under § 75.59(a)(7);

(xi) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to problems unrelated to monitor performance;

(xii) Supplementary RATA information required under § 75.59(a)(7)(i) through § 75.59(a)(7)(v), except that:

(A) The applicable data elements under § 75.59(a)(7)(ii)(A) through (T) and under § 75.59(a)(7)(iii)(A) through (M) shall be reported for flow RATAs at circular or rectangular stacks (or ducts) in which angular compensation for yaw and/or pitch angles is used (*i.e.*, Method 2F or 2G in appendices A-1 and A-2 to part 60 of this chapter), with or without wall effects adjustments;

(B) The applicable data elements under § 75.59(a)(7)(ii)(A) through (T) and under § 75.59(a)(7)(iii)(A) through (M) shall be reported for any flow RATA run at a circular stack in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a wall effects adjustment factor is determined by direct measurement;

(C) The data under § 75.59(a)(7)(ii)(T) shall be reported for all flow RATAs at circular stacks in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a default wall effects adjustment factor is applied; and

(D) The data under § 75.59(a)(7)(ix)(A) through (F) shall be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in appendices A-1 and A-2 to part 60 of this chapter is used and a wall effects adjustment factor is applied; and

(xiii) The certification required by section 6.1.2(b) of appendix A to this part and recorded under § 75.57(a)(7).

(8) Tons (rounded to the nearest tenth) of SO₂ emitted during the quarter and cumulative SO₂ emissions for the calendar year.

(9) Average NO_x emission rate (lb/mmBtu, rounded to the nearest thousandth) during the quarter and cumulative NO_x emission rate for the calendar year.

(10) Tons of CO₂ emitted during quarter and cumulative CO₂ emissions for calendar year.

(11) Total heat input (mmBtu) for quarter and cumulative heat input for calendar year.

(12) Unit or stack or common pipe header operating hours for quarter and cumulative unit or stack or common pipe header operating hours for calendar year.

(13) For low mass emissions units for which the owner or operator is using

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the optional low mass emissions methodology in § 75.19(c) to calculate NO_x mass emissions, the designated representative must also report tons (rounded to the nearest tenth) of NO_x emitted during the quarter and cumulative NO_x mass emissions for the calendar year.

(14) For low mass emissions units using the optional long term fuel flow methodology under § 75.19(c), for each quarter report the long term fuel flow for each fuel according to § 75.58(f)(2).

(15) For units using the optional fuel flow to load procedure in section 2.1.7 of appendix D to this part, report both the fuel flow-to-load baseline data and the results of the fuel flow-to-load test each quarter.

(b) The designated representative shall affirm that the component/system identification codes and formulas in the quarterly electronic reports, submitted to the Administrator pursuant to § 75.53, represent current operating conditions.

(c) *Compliance certification.* The designated representative shall submit a certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall indicate whether the monitoring data submitted were recorded in accordance with the applicable requirements of this part including the quality control and quality assurance procedures and specifications of this part and its appendices, and any such requirements, procedures and specifications of an applicable excepted or approved alternative monitoring method. For a unit with add-on emission controls, the designated representative shall also include a certification, for all hours where data are substituted following the provisions of § 75.34(a)(1), that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate SO₂ or NO_x emissions, pursuant to § 75.34.

(d) *Electronic format.* Each quarterly report shall be submitted in a format

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to be specified by the Administrator, including both electronic submission of data and (unless otherwise approved by the Administrator) electronic submission of compliance certifications.

(e) [Reserved]

(f) *Method of submission.* Beginning with the quarterly report for the first quarter of the year 2001, all quarterly reports shall be submitted to EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator.

(g) At his or her discretion, the DR may include important explanatory text or comments with an electronic quarterly report submittal, so long as the information is provided in a format that is compatible with the other data required to be reported under this section.

[64 FR 28622, May 26, 1999, as amended at 67 FR 40444, June 12, 2002; 73 FR 4357, Jan. 24, 2008; 76 FR 17317, Mar. 28, 2011]

§ 75.65 Opacity reports.

The owner or operator or designated representative shall report excess emissions of opacity recorded under § 75.57(f) to the applicable State or local air pollution control agency.

[64 FR 28623, May 26, 1999, as amended at 67 FR 40444, June 12, 2002]

§ 75.66 Petitions to the Administrator.

(a) *General.* The designated representative for an affected unit subject to the requirements of this part may submit a petition to the Administrator requesting that the Administrator exercise his or her discretion to approve an alternative to any requirement prescribed in this part or incorporated by reference in this part. Any such petition shall be submitted in accordance with the requirements of this section. The designated representative shall comply with the signatory requirements of § 72.21 of this chapter for each submission.

(b) *Alternative flow monitoring method petition.* In cases where no location exists for installation of a flow monitor in either the stack or the ducts serving an affected unit that satisfies the minimum physical siting criteria in appendix A of this part or where installation

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of a flow monitor in either the stack or duct is demonstrated to the satisfaction of the Administrator to be technically infeasible, the designated representative for the affected unit may petition the Administrator for an alternative method for monitoring volumetric flow. The petition shall, at a minimum, contain the following information:

(1) Identification of the affected unit(s);

(2) Description of why the minimum siting criteria cannot be met within the existing ductwork or stack(s). This description shall include diagrams of the existing ductwork or stack, as well as documentation of any attempts to locate a flow monitor; and

(3) Description of proposed alternative method for monitoring flow.

(c) *Alternative to standards incorporated by reference.* The designated representative for an affected unit may apply to the Administrator for an alternative to any standard incorporated by reference and prescribed in this part. The designated representative shall include the following information in an application:

(1) A description of why the prescribed standard is not being used;

(2) A description and diagram(s) of any equipment and procedures used in the proposed alternative;

(3) Information demonstrating that the proposed alternative produces data acceptable for use in the Acid Rain Program, including accuracy and precision statements, NIST traceability certificates or protocols, or other supporting data, as applicable to the proposed alternative.

(d) *Alternative monitoring system petitions.* The designated representative for an affected unit may submit a petition to the Administrator for approval and certification of an alternative monitoring system or component according to the procedure in subpart E of this part. Each petition shall contain the information and data specified in subpart E, including the information specified in § 75.48, in a format to be specified by the Administrator.

(e) *Parametric monitoring procedure petitions.* The designated representative for an affected unit may submit a petition to the Administrator, where each

petition shall contain the information specified in § 75.58(b) for the use of a parametric monitoring method. The Administrator will either:

(1) Publish a notice in the FEDERAL REGISTER indicating receipt of a parametric monitoring procedure petition; or

(2) Notify interested parties of receipt of a parametric monitoring petition.

(f) [Reserved]

(g) *Petitions for emissions or heat input apportionments.* The designated representative of an affected unit shall provide information to describe a method for emissions or heat input apportionment under §§ 75.13, 75.16, 75.17, or appendix D of this part. This petition may be submitted as part of the monitoring plan. Such a petition shall contain, at a minimum, the following information:

(1) A description of the units, including their fuel type, their boiler type, and their categorization as Phase I units, substitution units, compensating units, Phase II units, new units, or non-affected units;

(2) A formula describing how the emissions or heat input are to be apportioned to which units;

(3) A description of the methods and parameters used to apportion the emissions or heat input; and

(4) Any other information necessary to demonstrate that the apportionment method accurately measures emissions or heat input and does not underestimate emissions or heat input from affected units.

(h) *Partial recertification petition.* The designated representative of an affected unit may provide information and petition the Administrator to specify which of the certification tests required by § 75.20 apply for partial recertification of the affected unit. Such a petition shall include the following information:

(1) Identification of the monitoring system(s) being changed;

(2) A description of the changes being made to the system;

(3) An explanation of why the changes are being made; and

(4) A description of the possible effect upon the monitoring system's ability

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to measure, record, and report emissions.

(i) [Reserved]

(j) *Petition for alternative method of accounting for emissions prior to completion of certification tests.* The designated representative for an affected unit may submit a petition to the Administrator to use an alternative to the procedures in § 75.4(d)(3), (e)(3), (f)(3) or (g)(3) to account for emissions during the period between the compliance date for a unit and the completion of certification testing for that unit. The designated representative shall include:

(1) Identification of the affected unit(s);

(2) A detailed explanation of the alternative method to account for emissions of the following parameters, as applicable: SO₂ mass emissions (in lbs), NO_x emission rate (in lbs/mmBtu), CO₂ mass emissions (in lbs) and, if the unit is subject to the requirements of subpart H of this part, NO_x mass emissions (in lbs); and

(3) A demonstration that the proposed alternative does not underestimate emissions.

(k) *Petition for an alternative to the stabilization criteria for the cycle time test in section 6.4 of appendix A to this part.* The designated representative for an affected unit may submit a petition to the Administrator to use an alternative stabilization criteria for the cycle time test in section 6.4 of appendix A to this part, if the installed monitoring system does not record data in 1-minute or 3-minute intervals. The designated representative shall provide a description of the alternative criteria.

(l) *Any other petitions to the Administrator under this part.* Except for petitions addressed in paragraphs (b) through (k) of this section, any petition submitted under this paragraph shall include sufficient information for the evaluation of the petition, including, at a minimum, the following information:

(1) Identification of the affected plant and unit(s);

(2) A detailed explanation of why the proposed alternative is being suggested in lieu of the requirement;

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(3) A description and diagram of any equipment and procedures used in the proposed alternative, if applicable;

(4) A demonstration that the proposed alternative is consistent with the purposes of the requirement for which the alternative is proposed and is consistent with the purposes of this part and of section 412 of the Act and that any adverse effect of approving such alternative will be *de minimis*; and

(5) Any other relevant information that the Administrator may require.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26540, 26569, May 17, 1995; 61 FR 59162, Nov. 20, 1996; 64 FR 28623, May 26, 1999; 67 FR 40444, June 12, 2002; 73 FR 4358, Jan. 24, 2008]

§ 75.67 Retired units petitions.

(a) [Reserved]

(b) For combustion sources seeking to enter the Opt-in Program in accordance with part 74 of this chapter that will be permanently retired and governed upon entry into the Opt-in Program by a thermal energy plan in accordance with § 74.47 of this chapter, an exemption from the requirements of this part, including the requirement to install and certify a continuous emissions monitoring system, may be obtained from the Administrator if the designated representative submits to the Administrator a petition for such an exemption prior to the deadline in § 75.4 by which the continuous emission or opacity monitoring systems must complete the required certification tests.

[60 FR 17131, Apr. 4, 1995, as amended at 60 FR 26541, May 17, 1995; 62 FR 55487, Oct. 24, 1997]

Subpart H—NO_x Mass Emissions Provisions

SOURCE: 63 FR 57507, Oct. 27, 1998, unless otherwise noted.

§ 75.70 NO_x mass emissions provisions.

(a) *Applicability.* The owner or operator of a unit shall comply with the requirements of this subpart to the extent that compliance is required by an applicable State or federal NO_x mass emission reduction program that incorporates by reference, or otherwise adopts the provisions of, this subpart.

Calendar No. 10695TH CONGRESS }
1st Session }

SENATE }

REPORT
No. 95-127**CLEAN AIR AMENDMENTS OF 1977**

MAY 10 (legislative day, MAY 9), 1977.—Ordered to be printed

Mr. MUSKIE, from the Committee on Environment and Public Works, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 252]

The Committee on Environment and Public Works, to which was referred the bill (S. 252) a bill to amend the Clean Air Act, as amended, having considered the same, reports favorably thereon with amendments and recommends that the bill (as amended) do pass.

PREFACE

The committee has reported a bill which in most respects is similar to the legislation which the Senate passed on August 5, 1976. It includes eight new provisions; significant modifications of five provisions; and minor modifications of others. But, with the exception of the issue which is referred to as "nonattainment", the bill is very similar to last year's Senate-passed bill.

This year the committee held 4 days of hearings and heard 50 witnesses. There are 3,023 pages of printed testimony and 10 sessions were held to mark up this bill. This means that, over the past 3 years, this legislation has been subject, cumulatively, to 18 days of hearings, and 58 days of mark-up sessions, and has been commented on by 138 witnesses, in 9,470 pages of testimony.

The committee has made clarifications in provisions where deemed appropriate. But in the interest of consistency and in the interest of presenting the Senate legislation, the major features of which would be familiar, the committee tried to stay within the bounds of last year's bill.

The committee has agreed that the report on the legislation should also be similar to last year's report, except in those instances in which

and provide for control of emissions from Federally licensed activities such as Outer Continental Shelf oil or gas leasing, it would be considerably more difficult for some areas to attain the oxidant standards.

INTERSTATE POLLUTION ABATEMENT (SEC. 8)

SUMMARY

This section amends section 110 of existing law. It requires that each State implementation plan prohibit any stationary source within that State from emitting air pollutants which would interfere with measures in another State to prevent significant deterioration, prevent attainment and maintenance of ambient air quality standards in another State, or endanger the health or welfare of the citizens of another State.

The following provisions implement the basic prohibition:

- Each State implementation plan must identify each new or existing source which may have the adverse air quality impact on another State prohibited under this section, and notice must be given to all nearby States of the identity of such sources.
- Any State or political subdivision may petition the Administrator for a finding that a major stationary source in another State emits pollutants which would adversely affect the air quality in the petitioning State. The Administrator must make such a finding or dismiss the petition within 60 days. If a finding of violation is made, the Administrator shall proceed to abate the pollution in the host State as a violation of that State's implementation plan.

DISCUSSION

The Clean Air Act of 1970 required that each State implementation plan include "measures necessary" to insure that emissions from stationary sources in one air quality control region would not interfere with the attainment or maintenance of any primary or secondary ambient air quality standards in any other State or air quality control region.

The act did not specify any abatement procedure in the event that a stationary source on one State did emit air pollutants which adversely affected the air quality control efforts of another State. As a result, no interstate enforcement actions have taken place, resulting in serious inequities among several States, where one State may have more stringent implementation plan requirements than another State. For example, an implementation plan for the State of Ohio was not even proposed until 1976. It has now been challenged and has not yet been effectively implemented. As a result, no interstate enforcement actions have taken place, resulting in serious inequities among several States, where one State may have more stringent implementation plan requirements than another State. For example, an adequate implementation plan for sulfur oxides for the State of Ohio was not even promulgated until 1976. It has now been challenged in court and has not yet been effectively implemented. As a result, there are no

enforceable control requirements applicable to most of the significant major stationary sources of sulfur oxides in Ohio. The emissions from plants in Ohio are transported across the Ohio River to West Virginia, which must then cope with pollution not generated by a source under its own control; and must require more stringent control of West Virginia sources to attain the ambient air quality standards.

In the absence of interstate abatement procedures, those plants in States with more stringent control requirements are at a distinct economic and competitive disadvantage. This new provision is intended to equalize the positions of the States with respect to interstate pollution by making a source at least as responsible for polluting another State as it would be for polluting its own State.

In the case of new or modified sources, the emissions of which would (1) interfere with the prevention of significant deterioration in another State, or (2) prevent the attainment or maintenance of any ambient air quality standards in another State, or (3) otherwise endanger the health or welfare of another State's citizens, the host State must notify all nearby States of such potential adverse air quality impact at least 60 days prior to the construction of such sources. The identity and regulation of such sources must also be included in the host State's implementation plan.

In the case of major existing stationary sources which may prevent attainment or maintenance of an ambient air quality standard, or otherwise endanger the health or welfare of another State's citizens, the host State must identify and regulate all such sources, and provide notice of the identity of such sources to all nearby States within 3 months after enactment of these amendments.

This section covers odors, noncriteria pollutants, and any other substance emitted into the air which would endanger the health and welfare of the citizens of another State, even if the substance is not regulated under the Clean Air Act within the State in which the emissions occur.

This provision will be especially important as sources begin to convert to use of coal as a primary fuel. The interstate abatement procedure will assume that converting sources do not degrade the air or endanger the public health of downwind States.

In the event that the Administrator finds that a source has been constructed or is operating in violation of this provision by affecting the prevention of significant deterioration or the attainment or maintenance of an air quality standard of another State, he must proceed under section 113 of the law to abate the emissions of the violating source. The Administrator shall proceed immediately to enforce against a new or modified source under section 113 after making a finding of violation of a State implementation plan. The Administrator shall proceed to enforce against an existing source if it has not abated its emissions within 3 months after the Administrator makes a finding of violation.

The only instance in which an existing violating source may continue in operation past that 3-month period is when the Administrator specifies emission limitations and a compliance schedule with increments of progress under which the source will be brought into final compliance with interstate implementation plan requirements no later than 3 years after the finding.