July 23, 2018

Acting Administrator
U.S. Environmental Protection Agency
Office of the Administrator, 1101A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Submitted via http://www.regulations.gov to Docket ID. No. EPA-HQ-OAR-2018-0295

RE: Response to Clean Air Act Section 126(b) Petitions from Delaware and Maryland, Docket ID No. EPA-HQ-OAR-2018-0295

Dear Acting Administrator Wheeler:

The Chesapeake Bay Foundation ("CBF"), Chesapeake Climate Action Network ("CCAN"), Environmental Integrity Project ("EIP"),[1] and Sierra Club (collectively, "NGOs") submit the following comments on the Environmental Protection Agency's ("EPA") Response to Clean Air Act Section 126(b) Petitions from Delaware and Maryland. 83 Fed. Reg. 26,666 (June 8, 2018). Specifically, this letter provides comment on the section 126(b) petition filed by Maryland and the three 126(b) petitions filed by Delaware regarding the Harrison Power Station ("Harrison"), the Homer City Generating Station ("Homer City"), and the Conemaugh Generating Station ("Conemaugh") (collectively, "the 126 petitions").

CBF is a nonprofit conservation organization dedicated to restoring and protecting the Chesapeake Bay and its rivers and streams. CBF has more than 275,000 members and e-subscribers, many of whom live, work, and recreate in downwind states impacted by upwind emissions of ozone precursors, including 102,449 in Maryland and 5,714 in Delaware. CBF's work also seeks to reduce air pollution within the Chesapeake Bay airshed, a 570,000-square-mile area that contributes nitrogen to the Bay watershed via atmospheric deposition from nitrogen oxides ("NO_x"). Sierra Club is a national environmental nonprofit organization with over three million members and supporters nationwide, including 18,000 members in Maryland and more than 2,000 members in Delaware, who are adversely impacted by emissions of ozone precursors from upwind sources. CCAN is a grassroots non-profit organization dedicated to raising awareness about the health and environmental impacts of global warming, and promoting the transition to clean energy generation in the mid-Atlantic region. CCAN represents approximately 53,000 members, including 20,562 in Maryland, many of whom hike, fish, swim, run, and boat in areas where ground-level ozone would be reduced if EPA were to grant Maryland's section 126 petition. EIP is a national non-profit based in Washington, D.C. that is dedicated to ensuring the effective enforcement of state and federal environmental laws in order to protect public health and the environment. EIP has a specific focus on the Clean Air Act and

[1] EIP and CCAN each have a substantial presence in Maryland and a strong interest in improving Maryland's air quality. These groups have been less involved or uninvolved in work in the State of Delaware. For these reasons, EIP and CCAN join these comments to the extent that the comments address EPA's response to Maryland's petition but not with respect to any matters that relate solely to Delaware's petitions.

on large stationary sources of air pollution, like coal-fired power plants, because of their significant impacts on public health and the environment.

As discussed in more detail below, the NGOs urge EPA to reconsider its proposed denial of the 126 petitions. EPA based its proposed denial on technical deficiencies with the 126 petitions as well as the Agency's own independent analysis of sources identified in the petitions. As discussed in the section entitled "Legal and Technical Comments" below, EPA's criticisms of the petitions are misplaced and EPA's independent analysis, as applied to the 126 petitions, is arbitrary and capricious. EPA must reverse course and grant the 126 petitions. The remedy requested by the 126 petitions would reduce ozone season NOx emissions, thereby reducing the negative impacts to human health and the environment caused by NOx emissions and the ground-level ozone it forms.

Background

A. Statutory Background

The federal Clean Air Act ("CAA") directs EPA to establish air quality standards for six "criteria" pollutants known to endanger human health and welfare, including ground-level ozone. 42 U.S.C. § 7408. For each of these pollutants, EPA establishes two sets of National Ambient Air Quality Standards ("NAAQS"): primary standards, to protect public health, and secondary standards, to protect the public welfare, including environmental resources. 42 U.S.C. § 7409. In 2008, EPA set the primary 8-hour ozone NAAQS at 0.075 parts per million (ppm) measured as a three-year average of fourth-highest daily maximum 8-hour concentrations. 73 Fed. Reg. 16436 (Mar. 27, 2008). In 2015, EPA reduced the primary 8-hour ozone NAAQS to 0.070 ppm to better protect public health and welfare. 80 Fed. Reg. 65292 (Oct. 26, 2015).

States are charged with meeting these federal standards by regulating sources of air pollution within their geographic boundaries. To this end, states are required to develop and submit a pollution control plan to EPA called a State Implementation Plan ("SIP"). SIPs must include enforceable emissions limitations and other control measures to ensure the attainment, maintenance, and enforcement of NAAQS. 42 U.S.C. §§ 7410(a)(1), (a)(2)(A). Geographic regions are classified by EPA as "nonattainment" when the NAAQS are not being met or when air pollution from the region contributes to nonattainment in a nearby area, and states must then take actions to reduce the problem pollutants, including making necessary revisions to the SIP and further regulating the sources of the pollutants. 42 U.S.C. § 7407(d) (air quality control regions); § 7502 (nonattainment plan provisions).

The CAA also includes a "good neighbor" provision which requires each state to include sufficient measures in its SIP to ensure its air pollution does not "contribute significantly to nonattainment in, or interfere with maintenance" of, air quality standards (NAAQS) in downwind or neighboring states. 42 U.S.C. § 7410(a)(2)(D).

Section 126 of the CAA provides that any state may petition EPA to make a finding that a source or group of sources is emitting air pollution in violation of the good neighbor provision. 42 U.S.C. § 7426(b). Section 126(b) requires that "[w]ithin 60 days after receipt of any petition

under this subsection and after public hearing, the Administrator ***shall*** make such a finding or deny the petition." 42 U.S.C. § 7426(b) (emphasis added). Section 126(c) provides that "it shall be a violation of this section and the applicable implementation plan in such State . . . (2) for any major existing source to operate more than three months after such finding has been made with respect to it." 42 U.S.C. § 7426(c).

Section 126 authorizes the Administrator to allow the continued operation of the source(s) "beyond the expiration of such three-month period if such source complies with such emission limitations and compliance schedules (containing increments of progress) as may be provided by the Administrator to bring about compliance . . . as expeditiously as practicable, but in no case later than three years after the date of such finding." 42 U.S.C. § 7426(c). In situations where the EPA imposes such limitations and compliance schedules, the good neighbor provision requires that state SIPs ensure compliance with these limitations and compliance schedules. 42 U.S.C. § 7410(a)(2)(D)(ii).

B. Procedural Background

In November of 2016, the State of Maryland submitted a section 126 petition requesting EPA to make a finding that 36 electric generating units ("EGUs"), at 19 separate power plants in five upwind states (Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia), are emitting air pollutants that significantly contribute to nonattainment and interfere with maintenance of the 8-hour ozone NAAQS in Maryland. Between August and November of 2016, the State of Delaware submitted three section 126 petitions requesting EPA to make a finding that Harrison, Homer City, and Conemaugh generating stations are emitting air pollutants that significantly contribute to nonattainment and interfere with maintenance of the 8-hour ozone NAAQS in Delaware.

Despite the clear statutory obligation, EPA failed to respond to any of the above 126 petitions within the 60-day deadline or the six-month extensions it granted itself for each of the petitions. The State of Maryland and a coalition of public interest groups, including NGOs, sued EPA in federal district court in Maryland to compel EPA to respond to the Maryland 126 petition. Recognizing EPA's "dilatory approach" to Maryland's section 126 petition and agreeing with Maryland and the public interest groups, the court recently ordered EPA to take final action on the Maryland 126 petition by September 15, 2018. *State of Maryland v. Scott Pruitt, et al.*, Memorandum Opinion on Motions for Summary Judgment, Case No. 1:17-cv-02873-JKB, at 13-14 (D. Md. filed June 13, 2018).[2] On June 8, 2018, EPA published its proposed denial of the Maryland and Delaware 126 petitions and initiated the present public comment period. 83 Fed. Reg. 26,666 (June 8, 2018).

Impacts of Ground-Level Ozone and its Precursor Pollutants

Ground-level ozone and its precursor pollutants cause real and significant harm to people and the environment. EPA's response to the section 126 petitions fails to recognize or account

[2] "In closing, the Court notes that it does not grant the above extension lightly. On the contrary, the Court is troubled by EPA's apparent unwillingness or inability to comply with its mandatory statutory duties within the timeline set by Congress." *Id*. at 14.

for the actual harm caused by transported air pollution. The plain language of section 126 provides states with a remedy, within an expedited timeframe, for the harm caused by pollution coming from an out-of-state source or sources. *See* 42 U.S.C. § 7426(b)-(c). Further highlighting the need for timely EPA action to reduce ozone precursors, a recent study in the Proceedings of the National Academy of Sciences found that NOx emissions in the U.S. between 2011 and 2015 have not been decreasing as quickly as EPA previously predicted.[3]

A. Human Health

Ground-level ozone, commonly referred to as smog, forms when volatile organic compounds ("VOCs") react with NOx in the presence of heat and sunlight. Exposure to NOx, as well as ground-level ozone, can cause a range of acute and chronic health effects. Ozone impairs lung function, aggravates asthma, and has been linked to increases in school absences, emergency room visits, and hospital admissions. Studies have shown that exposure to ozone increases the risk of heart attacks and other cardiovascular conditions and increases the risk of low birth weight in babies. Exposure to ozone has also been correlated with increased risk of death for those suffering from cardiopulmonary conditions. Ground-level ozone is particularly harmful for the most vulnerable members of society, including those with existing lung diseases, children, the elderly, and low-income families, as well as people who work or are active outdoors.

The expert report by George Thurston, Sc.D., submitted as Attachment A, describes the current state of human health research and evidence related to ground-level ozone impacts on human health. Thurston describes the "noxious nature" of ozone, how it eats away at solid materials, and notes, "[g]iven this evidence of ozone's devastating effects on solid materials, it comes as no surprise that ozone can also have serious adverse health effects on the more vulnerable human lung." Thurston Report at 4. Ozone damage has been compared by some to "getting a sunburn on your lungs." *Id*.

Already in 2018, the Baltimore-Columbia-Towson area in Maryland has experienced eleven (11) Code Orange air quality alert days on which outdoor air was categorized as unhealthy for sensitive groups. *See* EPA, Air Data – Ozone Exceedances (visited July 18, 2018), https://www.epa.gov/outdoor-air-quality-data/air-data-ozone-exceedances; *see also* Figure 1. Since Maryland submitted the section 126 petition in 2016, there have been 25 days when the human health-based standard for ozone was exceeded, including days when the outdoor air was categorized as Code Red and unhealthy for all groups. *See id*.

[3] Zhe Jiang et al., *Unexpected Slowdown of US Pollutant Emission Reduction in the Past Decade*, PNAS (Apr. 30, 2018), http://www.pnas.org/content/early/2018/04/24/1801191115.

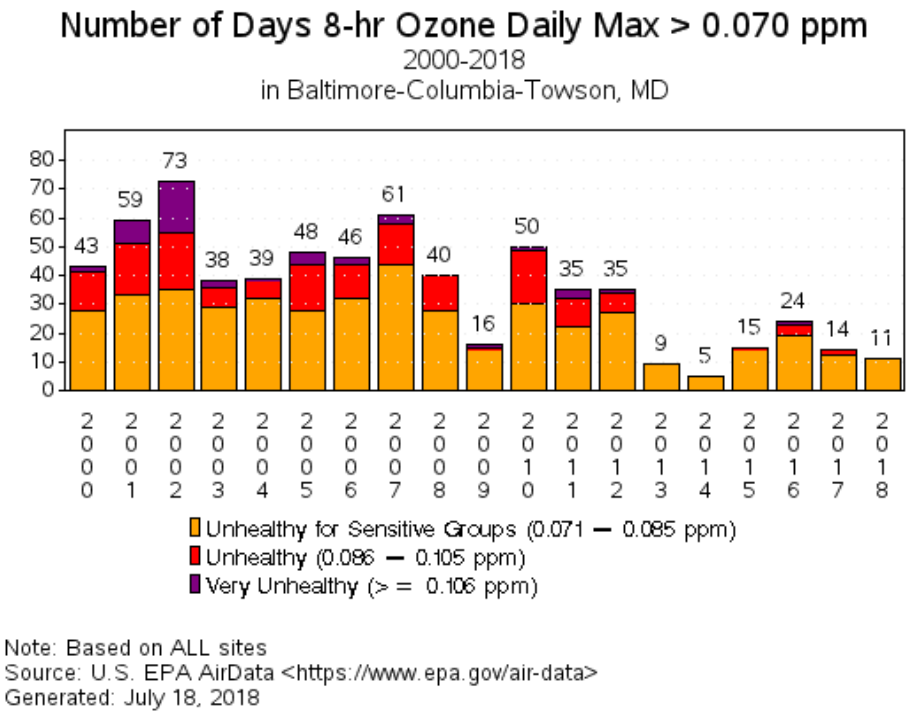

Figure 1. *Number of Days of 8-Hour Ozone NAAQS Exceedances in the Baltimore-Columbia-Towson, MD area. Source: U.S. EPA AirData, https://www.epa.gov/air-data*

The Thurston Report also includes the results of an analysis conducted using the EPA-approved Environmental Benefits Mapping and Analysis Program (BenMAP) model. Thurston Report, Att. A at 11-14. The BenMAP analysis relied on the ozone modeling conducted by the University of Maryland and submitted in support of Maryland's 126 petition, which evaluated the reductions in ozone concentrations that would have been experienced in the month of July of 2011 if the 36 EGUs had fully optimized their SCR or SNCR controls. *Id.* at 12.[4] The BenMAP analysis then quantified the number, and dollar valuation, of negative health outcomes per year that could have been avoided, including hospital admissions, asthma events, school loss days, and mortalities. *Id.* at 13. The BenMAP analysis found that if the 36 EGUs were to run their controls at optimal levels on every day of the ozone season, then the health impacts that could be avoided in Washington, D.C., Northern Virginia, Maryland, and Delaware would have a combined dollar valuation of over $750 million. *Id.* at 13-14.

EPA's failure to reduce the interstate transport of upwind emissions has real impacts on human health. EPA acknowledges that Maryland continues to suffer from nonattainment of the ozone NAAQS and acknowledges that upwind emissions contribute to this nonattainment. *See* 83 Fed. Reg. 26,678/3 (June 8, 2018) ("EPA determined in the final CSAPR Update that . . . statewide emissions from sources in Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia were linked to" a monitor in Harford County, MD that was "expected to have nonattainment and maintenance problems for the 2008 NAAQS."). Nonetheless, EPA's proposed denial of the 126

[4] *See also* Maryland 126 Petition Appendix D: Photochemical Modeling and Other Analyses Supporting the 126 Petition, Part I: University of Maryland Modeling, at D-1, *available at* http://mde.maryland.gov/programs/Air/Documents/MD126PetitionAppendicesFinal.pdf.

petitions applies a framework that ignores the actual harm suffered by residents in these downwind nonattainment areas.

B. Ecosystems and Water Quality

In addition to harming human health, ozone pollution is damaging to ecosystems. Ozone damages the leaves of plants and trees and reduces agricultural yields for numerous common and economically valuable plant and tree species.[5] "In terms of forest productivity and ecosystem diversity, ozone may be the pollutant with the greatest potential for region-scale forest impacts."[6] NOx emissions, which are transported from upwind to downwind states and contribute to ozone formation, also cause ecological harm when they fall to the earth's surface as nitrogen deposition.[7] Excess nitrogen deposited to surface waters can cause acidification impacts and harmful algae blooms, which block sunlight from reaching underwater grasses and, when decomposing, suck oxygen from the water and create dead zones where fish and other aquatic species cannot survive.[8] EPA identified these and other negative ecological impacts when it updated the ozone NAAQS in 2015:

> Even though the primary standards are designed to protect against adverse effects to human health, the emissions reductions would have welfare co-benefits in addition to the direct human health benefits . . . [including] reduced vegetation effects resulting from ozone exposure, reduced ecological effects from particulate matter deposition and from nitrogen emissions, reduced climate effects, and changes in visibility.[9]

The coal-fired power plant units identified in the 126 petitions contribute to the interstate transport of NOx which negatively impact the 64,000-square-mile Chesapeake Bay watershed. In 2010, in response to pervasive dead zones caused by excessive sediment, nitrogen, and phosphorus pollution, EPA established a federal-state clean-up plan called the Chesapeake Bay Total Maximum Daily Load ("Bay TMDL").[10] To develop the Bay TMDL, EPA calculated the maximum amount of sediment, nitrogen, and phosphorus the Chesapeake Bay could receive and still meet water quality standards.[11] These overall pollutant loads were then allocated to each of the seven Bay jurisdictions. Each jurisdiction is responsible for reducing its amount of pollutant contribution to meet the TMDL goals.[12]

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[5] EPA, *Air Quality Criteria for Ozone and Related Photochemical Oxidants*, EPA 600/R-05/004aF-cF, at 9-1 (2006).
[6] EPA, *Regulatory Impact Analysis of the Final Revisions to the Nat'l Ambient Air Quality Standards for Ground-Level Ozone*, EPA-452/R-15-007, at 7-3 (2015), *available at* https://www3.epa.gov/ttnecas1/docs/20151001ria.pdf.
[7] *See id*. at 7-2.
[8] *Id*. at 7-6.
[9] EPA, *Regulatory Impact Analysis of the Final Revisions to the Nat'l Ambient Air Quality Standards for Ground-Level Ozone*, EPA-452/R-15-007, at 1-13 (2015).
[10] U.S. EPA, Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus, and Sediment (Dec. 2010), *available at* https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document.
[11] *See id*. at Executive Summary, ES-1.
[12] *Id*.

At the time the Bay TMDL was established, EPA found that atmospheric deposition contributed about one-third of the total nitrogen loads delivered to the Chesapeake Bay.[13] EPA set a cap of 15.7 million pounds of atmospheric deposition of nitrogen per year directly to the Bay and its tidal tributaries, and allocated responsibility for reductions to meet this cap to EPA.[14] EPA "ensure[d] achievement of this allocation" based on state and federal compliance with and implementation of Clean Air Act regulations, including efforts to attain the ozone NAAQS.[15] As the federal partner to the Bay TMDL and signatory to the Chesapeake Bay Watershed Agreements since 1983[16], EPA has an obligation to pursue reductions of atmospheric nitrogen loads to the Bay watershed. EPA is also a signatory to the *Fowler v. EPA* settlement agreement in which EPA recognized its obligation to address sources of air pollution to the Bay. CBF, as a co-plaintiff with several signatories to the Chesapeake Bay Agreements, sued EPA in 2009 to require the agency to establish a TMDL for the Bay. *Fowler v EPA*, No. 1:09-CV-00005-CKK (D.D.C. 2009). That litigation was settled later that year and in the settlement agreement between the parties, EPA agreed to develop and begin implementation of the Bay TMDL by December 31, 2010. As part of that agreement, EPA stated that it would account for air deposition of nitrogen to the Bay and its tidal tributaries within the load allocation portion of the Bay TMDL. EPA also agreed to account for nitrogen deposition reductions from regulations already in place or planned in developing the nitrogen load allocations for the Bay TMDL. The 126 petitions submitted by Maryland and Delaware provide EPA with an opportunity to reduce the atmospheric deposition of nitrogen to the Bay watershed while simultaneously reducing ozone pollution and the threat to human health in downwind states.

EPA estimates that the Chesapeake Bay airshed is about nine times larger than the watershed at 570,000 square miles.[17] Fifty percent of the atmospheric deposition of nitrogen to the Bay watershed comes from areas outside of the Bay watershed,[18] including areas of Pennsylvania, West Virginia, Ohio, Kentucky, and Indiana where 34 of the 36 EGUs identified in Maryland's 126 petition and all three power plants identified in Delaware's three petitions are located.

[13] *Id*. at Section 4, 4-33.
[14] *Id*. at Section 8, 8-33; *see also*, Bay TMDL Appendix L, at L-23 ("the nitrogen deposition directly to the Bay's tidal surface waters is a direct loading with no land-based management controls and, therefore, needs to be linked directly back to the air sources and air controls as EPA's allocation of atmospheric nitrogen deposition.").
[15] *Id*. at Section 6, 6-28.
[16] *See* Chesapeake Bay Watershed Agreement (2014), *available at* https://www.chesapeakebay.net/channel_files/24334/2014_chesapeake_watershed_agreement.pdf (recommitting the Chesapeake Bay Program partners, including EPA, to the goals of Chesapeake Bay watershed restoration).
[17] *Id*. at Section 4, 4-34.
[18] *Id*.

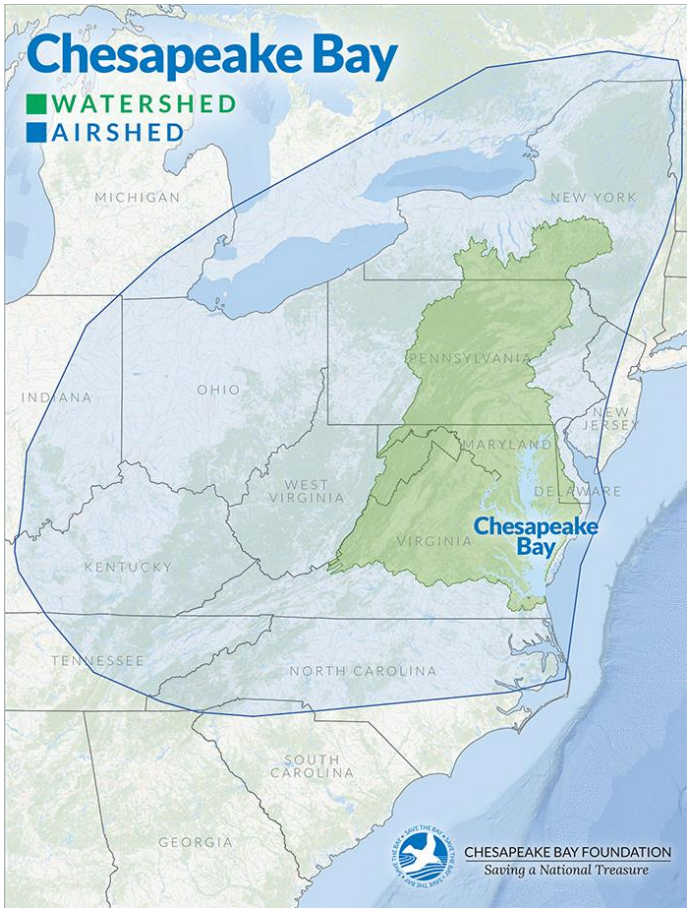

Figure 2. *Source: http://www.cbf.org/about-the-bay/maps/geography/the-chesapeakes-airshed.html*

CBF commissioned an expert air modeler, H. Andrew Gray, Ph.D., to conduct nitrogen deposition modeling to quantify the amount of nitrogen that is deposited within the Chesapeake Bay watershed from certain individual upwind power plants. *See* Gray Report, submitted as Attachment B. The Gray Report provides case studies for three coal-fired power plants: Harrison (identified by Maryland's 126 petition and a Delaware 126 petition); Homer City (identified by Maryland's 126 petition and a Delaware 126 petition); and Conemaugh (identified by a Delaware 126 petition). For each of these three plants, Gray used the CALPUFF air quality dispersion model (v5.8.5) to quantify the amount and geographic extent of nitrogen deposited from NOx emissions from the three power plants. Gray Report at 2. Gray also modeled the deposition of mercury, sulfur dioxide, and particulate matter from the power plants. *Id*.

The deposition modeling results show that in 2016, actual NOx emissions from the three power plants contributed more than 2.6 million pounds (1,204,760 kg) of nitrogen to the land and water surface within the Chesapeake Bay watershed, and 57,600 pounds (26,128 kg)[19] of nitrogen directly to the surface water of the Chesapeake Bay. Gray Report at 20, 22, 24. An example of the geographic extent of the nitrogen deposition from Harrison and Homer City is depicted in Figures 3a and 3b.

[19] 7,546 kg (Conemaugh) + 9,916 kg (Homer City) + 8,666 kg (Harrison) = 26,128 kg.

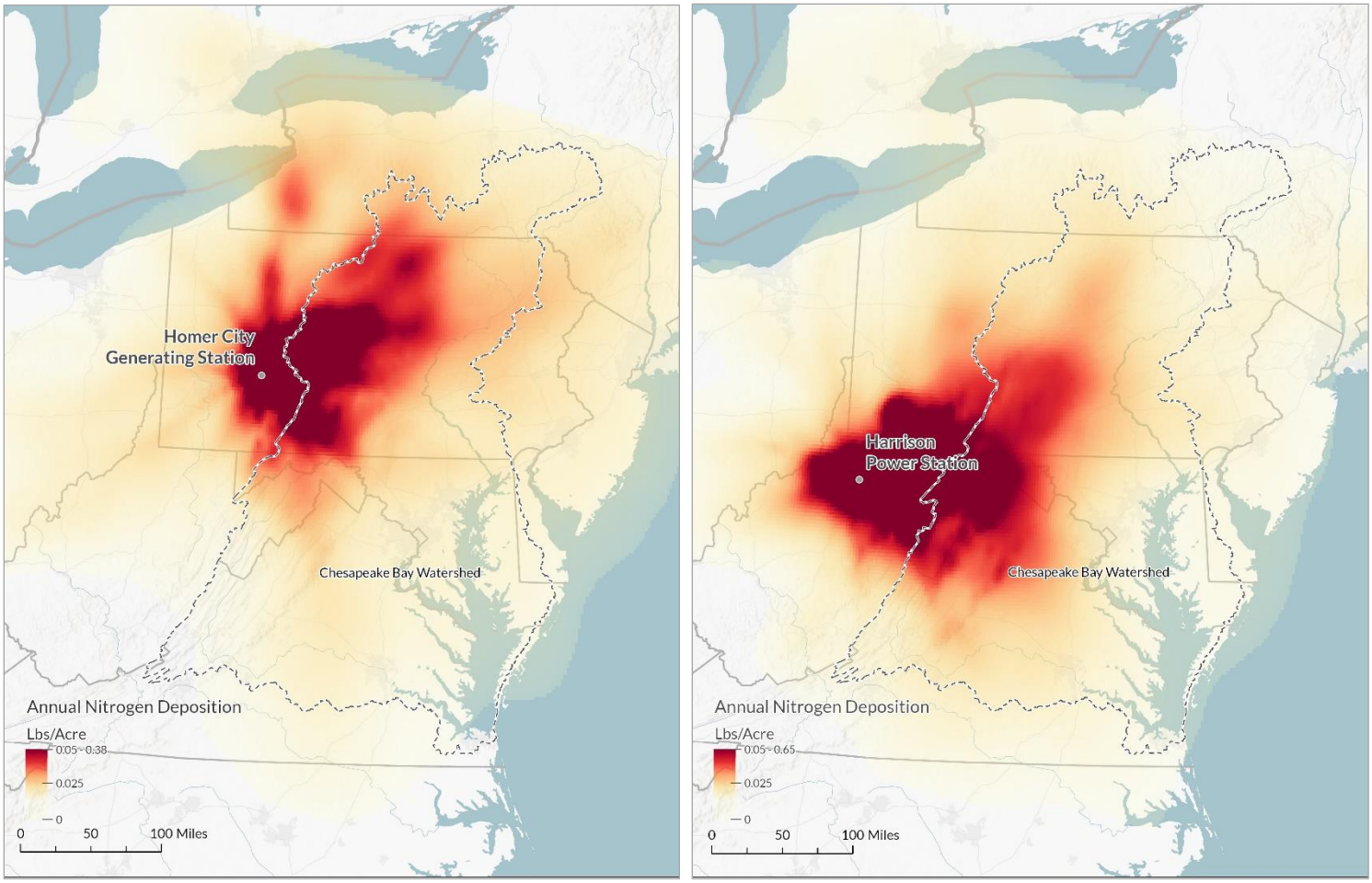

Figure 3a and 3b. *Heat maps depicting geographic extent of nitrogen deposition from the Homer City Generating Station and Harrison Power Station.*
Source: CBF GIS analysis and mapping of modeling results from Gray Report.

The seven jurisdictions within the Chesapeake Bay watershed are responsible for meeting pollution reduction goals under the Chesapeake Bay TMDL.[20] Recognizing the benefits of a restored Chesapeake Bay—including an economic value of up to $130 billion per year[21]—these jurisdictions, their local partners, and EPA's Chesapeake Bay Program invest significant resources to implement practices that reduce nitrogen, phosphorus, and sediment loads to the Bay watershed.[22] EPA, as the federal partner to the Bay TMDL and a signatory to the *Fowler v. EPA* settlement agreement, has the authority and obligation to ensure that atmospheric deposition of NOx from upwind states does not unfairly interfere with Bay jurisdictions' efforts to achieve the goals of the Bay TMDL.

[20] *See* Bay TMDL at Executive Summary, ES-1.
[21] CBF, *The Economic Benefits of Cleaning Up the Chesapeake* 5 (Oct. 2014), *available at* http://www.cbf.org/document-library/cbf-reports/the-economic-benefits-of-cleaning-up-the-chesapeake.pdf.
[22] *See, e.g.*, Chesapeake Bay Program, *Chesapeake Progress: Funding*, http://www.chesapeakeprogress.com/funding (last visited May 21, 2018) (noting the watershed jurisdictions invested an estimated $1.41 billion in watershed restoration programs in 2017).

EPA's decision to deny the 126 petitions ignores the significant environmental benefits that would be achieved by reducing the interstate transport of ozone and its precursor pollutants, while more equitably and adequately protecting human health and ecosystems in Maryland and Delaware. EPA's decision is also legally and technically arbitrary and capricious.

Legal and Technical Comments

EPA based its proposed denial on purported technical deficiencies with the 126 petitions as well as the Agency's own independent analysis of sources identified in the petitions. As set forth below, EPA criticisms of the petitions are misplaced and EPA's independent analysis, as applied to the 126 petitions, is arbitrary and capricious. EPA must reverse course and grant the 126 petitions.

I. EPA's reliance on projected ozone levels beyond Delaware's relevant attainment date as a basis for denial of the Delaware 126 petitions is unlawful and arbitrary.

EPA is not lawfully permitted to base its denial of Delaware's petition on projections of air quality in ozone season 2023, a date five years in the future and two years beyond Delaware's relevant attainment date for the 2015 ozone NAAQS. This approach is precluded by the plain language of the Clean Air Act and prior D.C. Circuit precedent. Moreover, even if EPA were authorized to consider projected ozone levels in 2023, the modeling EPA relies upon here is deeply flawed and increasingly inaccurate (thanks in significant part to actions that the Agency itself is undertaking), rendering conclusions based on that modeling arbitrary and capricious.

Section 126 provides that a state or political subdivision may petition the Administrator for a finding that any major pollution source or group of stationary sources "emits or would emit" any air pollutant in violation of the prohibition of section 7410(a)(2)(D)(i). 42 U.S.C. § 7426(b). The cross-referenced section prohibits "any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard." 42 U.S.C. § 7410(a)(2)(D)(i)(I).

EPA seizes on the word "will" in Section 110(a)(2)(D) to claim broad discretion in establishing the relevant timing for conducting its ozone air quality analysis. 83 Fed. Reg. 26676/3. But EPA's discretion is far narrower than it claims. In the context of good neighbor obligations under Section 110(a)(2)(D)(i), the D.C. Circuit has clearly spoken to the meaning of this section, finding that the statute unambiguously requires compliance with NAAQS attainment deadlines. *North Carolina v. EPA*, 531 F.3d 896, 911-12 (D.C. Cir. 2008). The *North Carolina* court remanded an EPA rule—the Clean Air Interstate Rule, or CAIR (the predecessor of CSAPR)— in part because "EPA did not make any effort to harmonize CAIR's . . . deadline for upwind contributors to eliminate their significant contribution with the attainment deadlines for downwind areas." *Id.* at 912. The court based this conclusion on the section 110(a)(2)(D) requirement that implementing provisions be consistent with Title I of the CAA, finding that a plan must be consistent with both the substance and procedural requirements of NAAQS compliance. *Id.* at 911. Indeed, the court went further than insisting good neighbor deadlines be

consistent with compliance deadlines for downwind areas expected to be in non-attainment: rather, compliance must be achieved in time for attainment determinations for downwind states expected to be even close to the NAAQS standard, *i.e.*, to not "interfere with maintenance." *Id.* at 908-09 (finding CAIR inadequate because it focused only on non-attainment, and not on maintenance, thus ignoring part of section 110(a)(2)(D)).

EPA attempts to circumvent the *North Carolina* holding by claiming that the Agency's established process for addressing good neighbor obligations is to use modeled future air quality concentrations "for a year that considers the relevant attainment deadlines for the NAAQS." 83 Fed. Reg. 26676/3 (emphasis added). But EPA is engaging in sleight of hand. The timing of good neighbor obligations must be directly tied to actual attainment dates, not to a date that considers such dates. This common sense conclusion was affirmed by the D.C. Circuit in *Natural Resources Defense Council v. EPA*, 777 F.3d 456, 458-59 (D.C. Cir. 2014). In *NRDC*, the court confronted an attempt by EPA to extend 2008 Ozone NAAQS compliance deadlines for several months, to include the 2018 ozone season. The court rejected this delay as "untethered to Congress' approach." *NRDC*, 777 F.3d at 469. The court held that EPA was required to adhere to the 1997 Ozone NAAQS attainment timeline set by the 1990 Clean Air Act amendments, plumbed to the date of attainment designations.

Delaware's attainment date for the 2015 ozone NAAQS is August 3, 2021.[23] Consequently, the determination of whether Delaware attained the NAAQS by this date will be made using ozone season monitor data from the 2018, 2019 and 2020 ozone seasons. Modeling suggesting that Delaware may be attaining the 2015 standard in 2023 is legally irrelevant and an unlawful basis for rejecting Delaware's 126 petitions.[24]

The wisdom of preventing EPA from denying a Section 126 petition on the basis of modeling projections five years in the future is reaffirmed by the infirmities of the modeling assumptions themselves. As evidenced by ozone monitor data from the most recent 2017 ozone season, the Cross-State Air Pollution Rule Update (CSAPR Update) is insufficient, by itself, to bring Delaware into attainment with the 2015 ozone NAAQS.[25] At the same time, EPA is

[23] *See* U.S. EPA, Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards; Final Rule, 83 Fed. Reg. 25776 (June 4, 2018) (designating New Castle County, Delaware as Marginal nonattainment for the 2015 primary ozone NAAQS as part of the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE nonattainment area with an effective date of August 3, 2018). The attainment date for a marginal nonattainment area is three years from the date on which the designation becomes effective—here August 3, 2021. 42 U.S.C. § 7511(a)(1) & tbl.1.

[24] Section 126 itself likewise imposes a timetable incompatible with the 2023 modeling. Under Section 126, a source found to violate the Good Neighbor provision may not "operate more than three months after such finding has been made," unless that operation is pursuant to a compliance schedule to rectify the violation "as expeditiously as practicable, but in no case later than three years after the date of such finding." 42 U.S.C. § 7426(c) (emphasis added). In other words, not only is it plain that Congress intended that EPA address air pollution under Section 126 rapidly, the longest compliance period afforded under the Section is only three years, or September 15, 2021, *not* by 2023. *See State of Maryland v. Scott Pruitt, et al.*, Memorandum Opinion on Motions for Summary Judgment, Case No. 1:17-cv-02873-JKB, at 13-14 (D. Md. filed June 13, 2018).

[25] Despite originally describing the CSAPR Update as a half measure, intended only to "mitigate" upwind contributions, *see* 81 Fed. Reg. at 75512/1, EPA is now proposing to determine that the CSAPR Update fully addresses relevant states' good neighbor obligations under the 2008 ozone NAAQS. *See* U.S. EPA, Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard; Proposed Rule, 83 Fed. Reg. 31915 (July 10, 2018); U.S. EPA, Air Plan Approval; Kentucky; 2008 Ozone NAAQS Interstate

actively working to undo a number of the other major rules that underpin the 2023 modeling results. For example, when EPA developed the emissions inventory for the modeling, it incorporated compliance with the rule establishing emission requirements for glider vehicles, glider engines, and glider kits (the Glider Rule).[26] The Glider Rule applies to glider vehicles, which are heavy duty diesel trucks constructed from a new body assembly (cab, brakes, front axle, etc.) and mated to a previously owned power train (engine and transmission).[27] Gliders are approximately 25 percent less expensive than new trucks and mechanically simpler.[28] In November of 2017, EPA proposed to repeal the Glider Rule, thus removing any limitation on the number of older, less stringently controlled engines in glider vehicles that will emit extremely significant amounts of NOx.[29]

As discussed in EPA's response to comments on the original rule, EPA estimated that unregulated glider vehicles would increase emissions from heavy-duty highway vehicles by approximately 300,000 tons annually in 2025.[30] Conversely, the entire CSAPR Update is only projected to reduce annual NOx emissions by 75,000 tons, meaning that EPA's proposed regulatory action would swamp multiple times over the emission reductions from the CSAPR Update—severely undercutting the assumptions baked into the EPA's estimates.[31] It bears note that even if the Glider Rule remains on the books, EPA recently announced a formal policy that it will not enforce the Rule.[32] Although EPA's no action assurance is being challenged in the D.C. Circuit (Case #18-1190) and has been temporarily stayed pending briefing on the stay motion,[33] EPA's non-enforcement efforts underline the unreasonableness of relying on the emission reductions from this rule as a basis for concluding that Delaware will attain the 2015 ozone NAAQS in 2023.

The Glider Rule is far from the only air quality-protective rule that EPA is working to weaken or rescind. Among many others, EPA is in the process of weakening the Corporate

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Transport SIP Requirements; Final Rule, 83 Fed. Reg. 33730 (July 17, 2018). Despite the CSAPR Update being fully implemented during ozone season 2017, Delaware continued to experience significant exceedances of the 2015 ozone standard in 2017 including a fourth-highest 8-hour daily maximum at the Brandywine Creek State Park monitor (AQS Site ID#100031010) of 74 parts per billion (ppb), well in excess of the 70 ppb 2015 primary ozone NAAQS, and a fourth-highest 8-hour daily maximum at the Martin Luther King Boulevard monitor (AQS Site ID#100032004) of 71 ppb. Consequently, any suggestion that the CSAPR Update is, by itself, sufficient to bring Delaware into attainment with the 2015 ozone NAAQS is misplaced.

[26] U.S. EPA, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 81 Fed. Reg. 73478 (Oct. 25, 2016).

[27] *Id.* at 53443/2.

[28] *Id.* at 53,443/3-44/2.

[29] U.S. EPA, Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits; Proposed Rule, 82 Fed. Reg. 53442 (Nov. 16, 2017)*; see also* EPA-420-R-16-901, "Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2," Response to Comments for Joint Rulemaking, at 1875-6 (Aug. 2016) (responding to comments on the original regulation of glider vehicles).

[30] *Id.*

[31] *See* EPA-452/R-16-004, "Regulatory Impact Analysis of the CSAPR Update," at ES-8, tbl. ES-1 (Sept. 2016).

[32] Memorandum from Susan Parker Bodine, Assistant Administrator, Office of Enforcement and Compliance Assurance, U.S. EPA to Bill Wehrum, Assistant Administrator, Office of Air and Radiation, U.S. EPA regarding Conditional No Action Assurance Regarding Small Manufacturers of Glider Vehicles (July 6, 2018).

[33] Per curiam order issued July 18, 2018.

Average Fuel Economy (CAFE) standards for light-duty vehicles,[34] most recently sending a rollback to the Office of Management and Budget for review in late May 2018. And EPA has recently proposed to withdraw the Control Techniques Guidelines for the Oil and Natural Gas Industry,[35] which were estimated to reduce 80,000 tons of volatile organic compounds (VOCs)—the other major ozone precursor beside NOx—annually.[36] Each deregulatory action that EPA takes further erodes the accuracy of EPA's 2023 modeling projections and further demonstrates the arbitrariness of EPA's reliance on that modeling to deny Delaware's requested relief under the 2015 ozone NAAQS.

II. EPA's proposed denial of Maryland's petition is arbitrary and capricious because EPA has failed to identify any legitimate technical deficiencies with Maryland's petition; rather, EPA's analysis of Maryland's petition is methodologically unsound and technically flawed.

Maryland's petition identifies thousands of tons of additional ozone NOx reductions that could be achieved through optimized operation of already-installed SCR controls at 32 coal-fired EGUs. Maryland's analysis of achievable NOx reductions was based on levels of SCR control efficiency actually achieved at the units in the past. EPA nevertheless asserts that Maryland's petition is "technically deficient" because, the Agency claims, units equipped with SCR cannot regain the levels of control efficiency that they achieved when the SCR was newly installed. 83 Fed. Reg. 26,677/2. As set forth in the Technical Note of Dr. Ranajit Sahu, attached as Attachment C, and as further detailed herein, EPA's assertion is wrong and the methodology that EPA used to support its assertion is deeply flawed.

EPA's approach to analyzing SCR control efficiency as applied to Maryland's 126 petition suffers from at least two significant methodological flaws. First, EPA evaluated ozone season NOx emission data for a set of years (2009 to 2015) during which SCR-equipped coal units were neither legally required nor economically incentivized to optimize SCR control efficacy. Consequently, there would be no reason to expect that actual emission rates during that period would reflect the lowest rates that those units were capable of achieving, fatally undermining the premise of EPA's analysis. Second, EPA's analysis is based on averaging emission rates across all SCR-equipped coal-fired EGUs. But SCR performance capabilities are unit specific, depending on the sizing of the SCR and arrangement of catalyst in the box, the type of boiler, the type of coal burned, and a number of other technical factors. As a result, the conclusions of EPA's analysis have little direct bearing on the emission rates achievable at the specific units identified in Maryland's 126 petition. Finally, EPA compounds these methodological flaws with a fundamental technical error: SCR-equipped coal-fired EGUs are fully capable of achieving the emission rates that they achieved when newly installed, even after a period of non-optimized use, a fact that is borne out by actual NOx emission data from coal-fired EGUs.

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[34] *See* Coral Davenport, E.P.A. Takes a Major Step to Roll Back Clean Car Rules, N.Y. Times (May 31, 2018), available at https://www.nytimes.com/2018/05/31/climate/epa-car-pollution-rollback.html.

[35] U.S. EPA, Notice of Proposed Withdrawal of the Control Techniques Guidelines for the Oil and Natural Gas Industry, 83 Fed. Reg. 10,478 (Mar. 9, 2018).

[36] *See* 81 Fed. Reg. 74,798 (Oct. 27, 2016); *see also* Final Control Techniques Guidelines Fact Sheet at 3, *available at* https://www.epa.gov/sites/production/files/2016-10/documents/fact-sheet-2016-oil-and-gas-ctg.pdf.

EPA describes the process it used to "determine the [emissions] rate that could be consistently achieved" by SCR controls at 83 Fed. Reg. 26677/2-3. EPA first evaluated coal-fired EGU NOx ozone season emission data from 2009 through 2015 and calculated an "average NOx ozone season emissions rate across the fleet of coal-fired EGUs with SCR for each of these 7 years." 83 Fed. Reg. 26677/2. EPA then "considered and rejected the lowest or second lowest ozone season NOx rates" on the basis that "these rates may reflect new SCR systems and SCR systems all of whose components are new (*e.g.*, due to simultaneous replacement of multiple layers of catalyst rather than routine replacement of a single layer)." 83 Fed. Reg. 26677/3. As a consequence of that process, EPA based its conclusions about the emission rate that could be consistently achieved by an SCR-equipped coal-fired EGU on the third-lowest ozone season average emission rate for the years 2009 to 2015. Due to its fatal methodological and technical flaws, EPA's analysis fails to demonstrate that the control efficiencies identified in Maryland's petitions are unachievable, and renders the Agency's conclusions regarding the petitions arbitrary and capricious.

EPA's first methodological flaw is that it considered fleetwide average NOx emissions for SCR-equipped coal units for a period during which coal units were not required to, and were not in fact, optimizing operation of their controls. In April 2015, the Ozone Transport Commission (OTC) conducted an analysis comparing transport rule allowance prices to the cost of operating SCR controls.[37] In conducting the analysis, the OTC observed that "[d]uring recent ozone seasons, a number of coal-fired EGU's equipped with SCR post-combustion NOX controls have demonstrated ozone season average NOX emission rates far in excess of levels that those units demonstrated during previous ozone seasons,"[38] as illustrated in Figure 4 below.

[37] OTC Stationary and Area Source Committee, Largest Contributors Workgroup Comparison of CSAPR Allowance Prices to Cost of Operating SCR controls (Apr. 15, 2015), *available at* https://otcair.org/upload/Documents/Reports/Draft%20Final%20Allowance%20v%20SCR%20operating%20costs%2004-15-15.pdf. Included as Attachment D.

[38] *Id*. at 1.

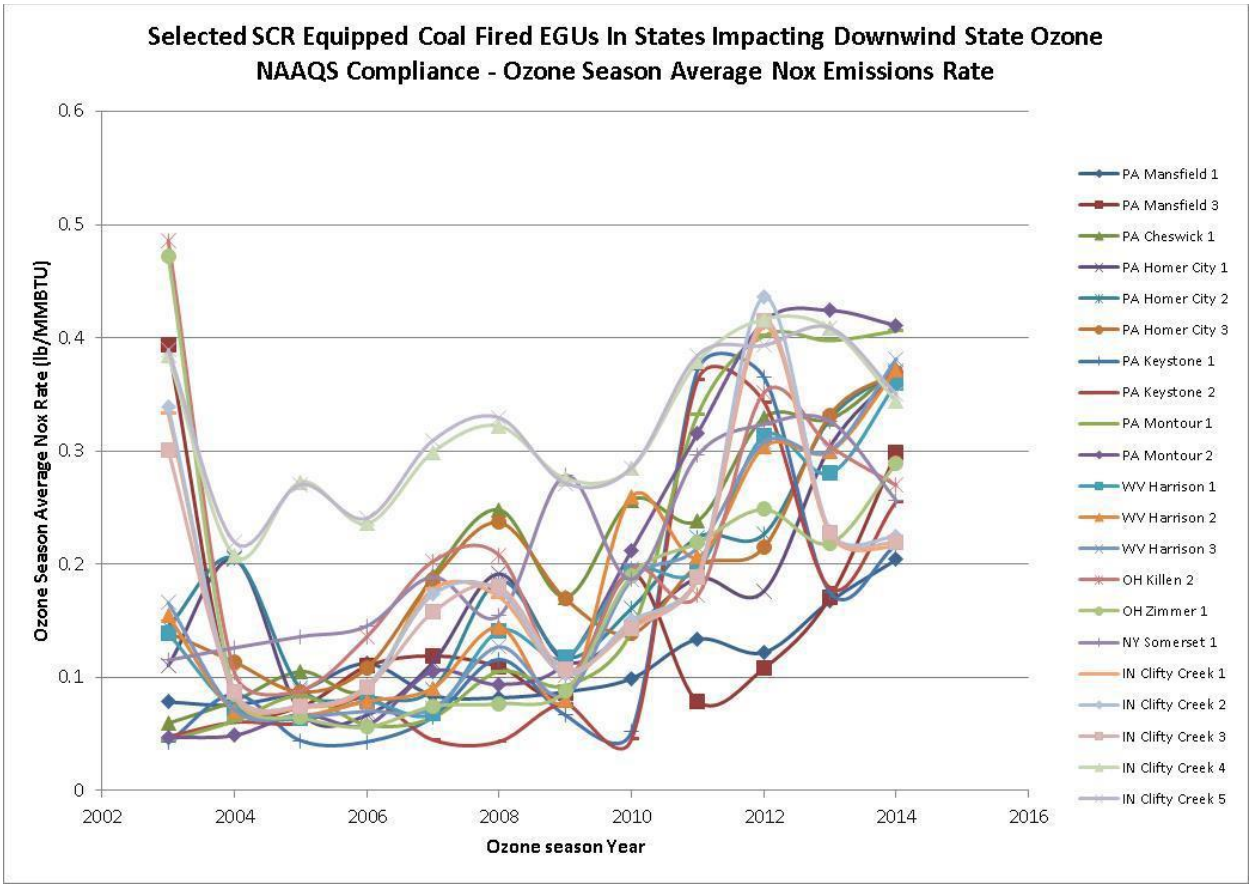

Figure 4. *OTC Analysis. Source: see footnote 36.*

The OTC then analyzed annual and (ozone) seasonal NOx allowance prices from 2005 to 2015.

Table 1: *NOX Allowances Prices from Argus Air Daily*

Date	Annual Nox Allowance Cost (est $)	Seasonal Nox Allowance Cost (est $)	Combined Annual and Seasonal Cost (est $)	Program
4/28/2005	0	3175	3175	NOx SIP Call
4/28/2006	0	2312	2312	NOx SIP Call
4/30/2007	0	983	983	NOx SIP Call
4/30/2008	0	775	775	NOx SIP Call
4/30/2009	425	1232	1657	CAIR
4/30/2010	420	33	453	CAIR
4/29/2011	150	20	170	CAIR
4/30/2012	35	8	43	CAIR
4/30/2013	40	18	58	CAIR
4/30/2014	52	22	74	CAIR
3/31/2015	125	125	250	CSAPR

As Table 1 illustrates, combined annual and ozone season NOx allowance costs between 2009 and 2015 were a small fraction of those costs between 2005 and 2008. As further detailed in the OTC analysis, based on the relative cost of operating SCR controls and the NOx allowance prices during the 2009 to 2015 period, coal-fired EGUs had no economic incentive to optimize their control efficiency. Indeed, as Dr. Sahu observes, "EPA's Cross-State Air Pollution Rule Update (CSAPR Update)—which went into effect two ozone seasons later, during ozone season 2017—relies on optimization of installed SCR controls as the basis for driving significant additional emission reductions."[39] Ozone season NOx emission data for 2009 to 2015 are not illustrative of the rates that can be achieved through optimization of NOx controls and EPA's reliance on those data to deny Maryland's petition is misplaced.

The second methodological flaw with EPA's analysis is that it relies on average NOx rates across the entire fleet of SCR-equipped coal-fired EGUs and disregards unit-specific attributes that significantly affect SCR control efficiency achievable at a specific unit. Even if the 2009 to 2015 fleetwide NOx emissions data that EPA considered shed some light on optimized emission rates for SCR-equipped units generally, which is doubtful, they shed even less light on the question of whether the 32 individual SCR-equipped units in Maryland's 126 petition are capable of achieving the emission rates that Maryland asserts in its petition. This is because EPA entirely ignores the specific attributes of those units. However, as Dr. Sahu explains, "the control efficiency of an individual unit's SCR is a function of the sizing and arrangement of catalyst in the control box, the total volume of catalyst used, the [catalyst management plan] used and its efficacy, the degree of maldistribution of flow and temperature of the gas at the inlet to the SCR, the extent of proper mixing between ammonia and the flue gases, as well as a number of other factors that EPA failed to control for including coal type, boiler type, and the boiler-exit NOx levels achieved by in-boiler NOx reduction strategies."[40] EPA's analysis is simply too generic to serve as a basis for concluding that the emission rates identified in Maryland's 126 petition are unachievable.

The third flaw with EPA's analysis is that it improperly jettisons the lowest two ozone season average NOx emission rates on the basis that "these rates may reflect new SCR systems and SCR systems all of whose components are new (*e.g.*, due to simultaneous replacement of multiple layers of catalyst rather than routine replacement of a single layer)."[41] As Dr. Sahu's Technical Note explains, this is a technically unsound basis to reject those data for several reasons. First, EPA does not appear to have verified whether any of the units in its analysis had newly installed SCRs, and there is reason to expect that few did. As Dr. Sahu notes, many SCRs were installed in conjunction with the NOx SIP Call, which went into effect in ozone season 2003[42] and as described above ushered in an era of much higher NOx allowance prices. These SCRs would not have been new during the years of EPA's analysis. Second, and more fundamentally, EPA's suggestion that new SCR systems are capable of achieving greater control efficiency than older ones is simply incorrect. This is because control efficiency can be restored by replacement and arrangement of catalyst, a fact that, as Dr. Sahu notes, EPA itself

[39] Attachment C at 4.
[40] *Id.* at 5.
[41] 83 Fed. Reg. 26,677.
[42] Attachment C at 5.

acknowledges in its 2017 revised Control Cost Manual.[43] In that Manual, in discussing SCR controls, EPA observes that "the catalyst life for regenerated catalyst is equal to or longer than the catalyst life of new catalyst; regeneration can fully restore the NOx catalyst activity, and by increasing the number of catalyst sites available, can increase the NOx catalyst activity from the original catalyst (by up to 25 percent)."[44]

Ultimately, contrary to EPA's claims and consistent with Dr. Sahu's technical assessment, there are many examples of SCR-equipped coal-fired EGUs that achieved control efficiencies commensurate with best past performance, even after undergoing a period of non-optimization of controls. These units bear out the correctness of the premise of Maryland's 126 petition and further confirm the arbitrariness of EPA's basis for denial. By way of illustration, Unit 2 at the Gibson coal plant in Indiana showed an initial period of optimizing its SCR between 2005 and 2006 (during which it achieved ozone season average NOx emission rates of 0.0838 and 0.0672 lb/MMBtu respectively). It then ceased optimizing its SCR, reaching a maximum ozone season average NOx emission rate of 0.2182 in 2011 before achieving a lowest-ever ozone season average NOx emission rate of 0.0629 in 2017.

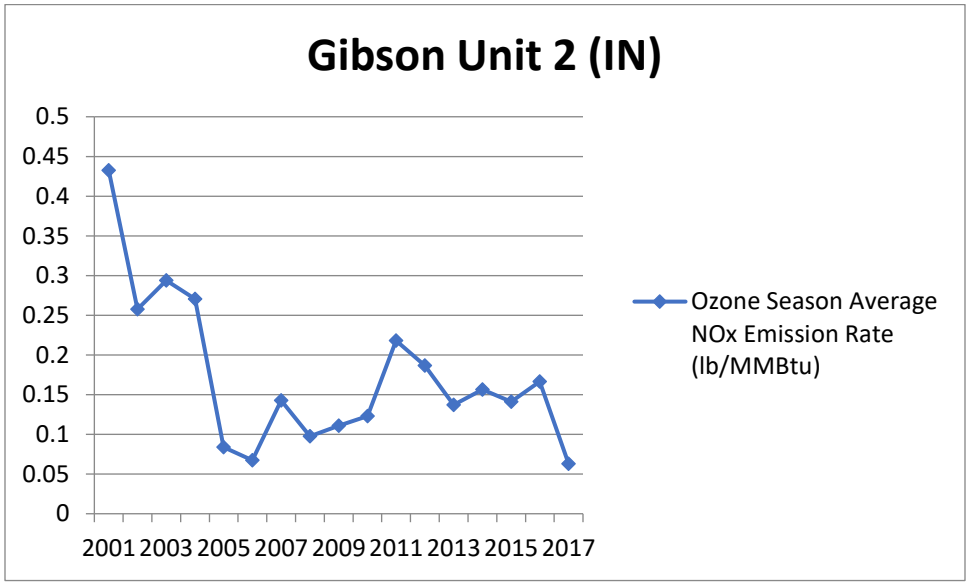

Figure 5. Source: EPA's Air Markets Program Database (https://ampd.epa.gov/ampd/)

Unit 1 at Bruce Mansfield in Pennsylvania follows the same trend. The facility achieved average ozone season NOx emission rates as low as 0.0784 and 0.0759 lb/MMBtu in ozone seasons 2003 and 2004 respectively, then emissions increased up to a high of 0.2421 lb/MMBtu for ozone season 2015 before achieving a lowest-ever ozone season NOx emission rate of 0.0723 lb/MMBtu in 2017. Emissions profiles for the other units at the Bruce Mansfield facility are similar.

[43] *Id.* at 6.
[44] *Id.* at 6 (citing EPA, 2017 revised Control Cost Manual, Section 4, Chapter 2), *available at* https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual. The Manual is included as Attachment E.

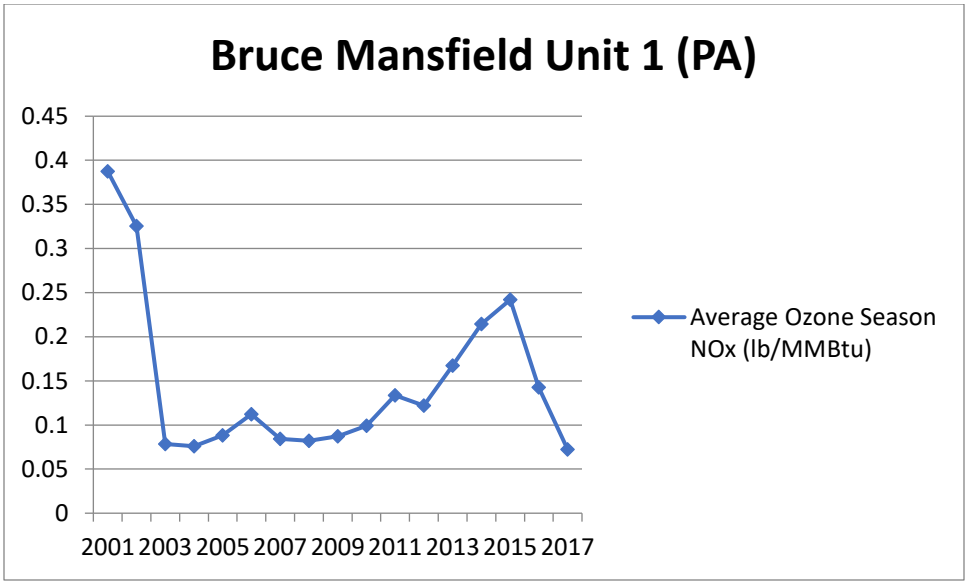

Figure 6. Source: EPA's Air Markets Program Database (https://ampd.epa.gov/ampd/)

The five units at Kyger Creek in Ohio provide further illustration of the same point. As the data for Unit 1 (plotted below) show, the unit installed an SCR and achieved its lowest average ozone season NOx emission rate to date at 0.0788 lb/MMBtu in 2005. The plant then ceased optimizing control and in ozone season 2016 had an average NOx emission rate of 0.1916 lb/MMBtu. In ozone season 2017, the plant achieved its lowest ever ozone season average NOx emission rate: 0.0651 lb/MMBtu. The other four units at the facility have nearly identical annual NOx emission profiles.

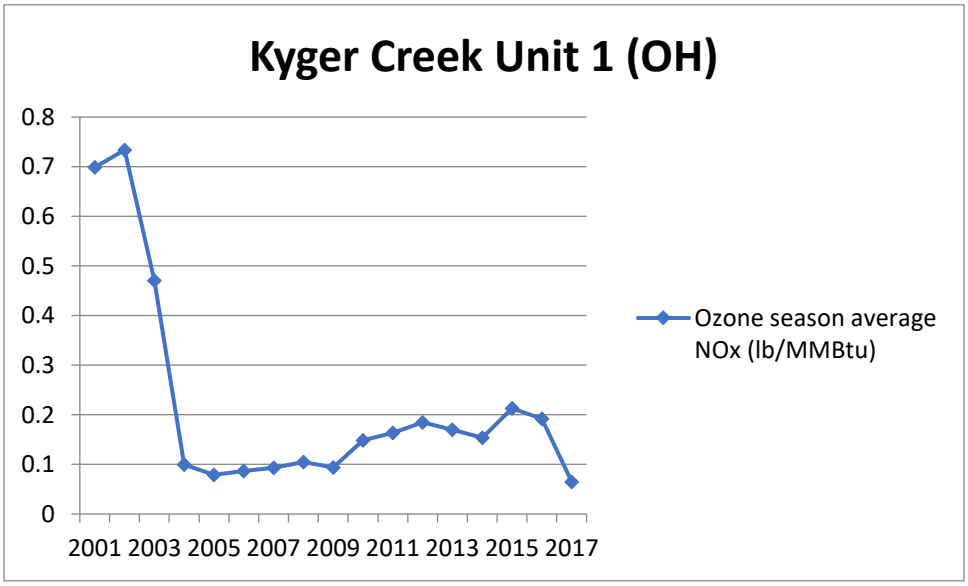

Figure 7. Source: EPA's Air Markets Program Database (https://ampd.epa.gov/ampd/)

In sum, EPA's critique of the technical merits of Maryland's 126 petition badly misses the mark. The units at issue in Maryland's petition are fully capable of regaining and achieving best historical performance.

Because the units identified in Maryland's petition are capable of achieving historic best performance NOx emission rates and many have continued to fail to do so in 2017 under the CSAPR Update, significant additional emission reductions are achievable from these units. Table 2 below identifies the NOx emission rate that Maryland requested in its Section 126 petition as well as the actual 2017 ozone season average emission rate for all of the units in Maryland's petition that continue to underperform (*i.e.*, those that emit at rates at least 20 percent higher than Maryland's requested 30-day emission rate).

Table 2: NOx Emission Rate Data for Underperforming SCR-Equipped Units

Facility Name	Unit ID	State	Maryland requested 30-day average NOx rate (lb/MMBtu)	Actual 2017 ozone season average NOx rate (lb/MMBtu) [45]	Percent 2017 rate is above requested rate
Gibson	5	IN	0.084	0.146	74%
Petersburg	2	IN	0.062	0.084	35%
Petersburg	3	IN	0.061	0.077	26%
East Bend	2	KY	0.067	0.107	60%
Paradise	3	KY	0.120	0.223	86%
Killen	3	OH	0.120	0.264	120%
W.H. Zimmer	1	OH	0.094	0.193	105%
Cheswick	1	PA	0.097	0.156	61%
Homer City	1	PA	0.072	0.176	144%
Homer City	2	PA	0.093	0.179	92%
Keystone	1	PA	0.048	0.085	77%
Keystone	2	PA	0.046	0.070	52%
Montour	1	PA	0.100	0.144	44%
Montour	2	PA	0.088	0.153	74%
Harrison	1	WV	0.066	0.105	59%
Pleasants	1	WV	0.046	0.084	83%
Pleasants	2	WV	0.045	0.132	193%

EPA must make the requested finding under Section 126(b) and require the significant additional achievable NOx emission reductions from the underperforming units identified in Maryland's 126 petition.

III. It is arbitrary and capricious for EPA to conclude, based on the existence of the CSAPR Update, that all highly cost effective emission reductions at the Section 126 petition units have already been achieved.

As shown in Table 2 above, 17 of the 32 SCR-equipped units identified in Maryland's petition continue to emit NOx at rates far higher than their best historical ozone season performance despite the implementation of the CSAPR Update beginning with the ozone season

[45] EPA, 2011-2017 NOx Emission Rates from Petition Units.

2017. EPA nevertheless claims that "because the strategy of optimizing existing controls has already been implemented for these sources via the CSAPR Update, there are no additional control strategies identified to further reduce NOX emissions at these sources to address the more stringent standard." 83 Fed. Reg. at 26,679. EPA's claim cannot be squared with the actual emission data and must be rejected as arbitrary and capricious.

First, it is clear that additional emission reductions are available from at least half of the units identified in Maryland's petition. This is borne out by the discussion in Section II above and in the Technical Note of Dr. Sahu, as well as by the performance of fifteen units in Maryland's petition that during the 2017 ozone season emitted NOx at rates comparable to or, in thirteen of the fifteen instances better than, their best historic ozone season emission rates. The ability of nearly half of the SCR-equipped units in Maryland's petition to achieve or surpass the emission rates identified by Maryland (based on best historic ozone season performance) provides strong evidence that the rates identified by Maryland were technically achievable.

Moreover, EPA has never claimed that it would not be highly cost effective for these SCR-equipped units to operate their installed controls consistent with best historic emission rates. Nor could it. As the legislative history of Section 126(b) demonstrates, an important part of the impetus to add Section 126(b) was to help equalize control costs between upwind and downwind states. The Senate Committee Report provides:

> In the absence of interstate abatement procedures, those plants in States with more stringent control requirements are at a distinct economic and competitive disadvantage. [Section 126(b)] 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.

GenOn, 722 F.3d at 523 (quoting S.REP. NO. 95–127, at 42 (1977), reprinted in 3 1977 Legislative History of the Clean Air Act Amendments of 1977, at 42). As Maryland explains in its 126 petition, it is asking SCR-equipped coal-fired EGUs in upwind states to do what is already required by regulation in Maryland: optimize operation of installed controls.[46] Thus, as Maryland notes, "the remedy being requested by Maryland at the 36 EGUs has already been adopted in Maryland."[47] Since Maryland has already determined optimization of existing SCR controls is cost-effective and EPA has as well by requiring this control strategy as part of the CSAPR Update, it is arbitrary and capricious for EPA to conclude that all highly cost effective emission reductions at the Section 126 petition units have already been achieved.

IV. EPA's proposed denial of the 126 petitions, along with other recent EPA actions related to the good neighbor provision, demonstrate EPA's circular arguments and overall delay and inaction on interstate transport of air pollution.

The CAA includes four separate provisions for addressing interstate transport: section 110(a)(2)(D) (the good neighbor provision); section 126; section 176A (authorizing formation of

[46] Maryland 126 Petition at 4 ("In 2015, after observing that EGUs in Maryland were not running their controls effectively during each day of the ozone season, Maryland adopted regulations to fix this problem.").
[47] *Id.*

multi-state transport regions); and section 184 (creating the northeast Ozone Transport Region). In prior rulemakings, EPA has commented on the relationship between these provisions: "it makes sense to consider these provisions together as the set of statutory requirements that carry out Congress' desired approach to the problem of interstate transport." 64 Fed. Reg. 28,259/1 (May 25, 1999). Contrary to the holistic statutory framework provided by Congress, EPA has recently acted—or, more accurately, declined to act—on these separate provisions so as to eliminate any ability of downwind states to obtain relief from transported pollution from upwind states.

In November of 2017, EPA denied a section 176A petition submitted to EPA by downwind states in the Ozone Transport Region ("OTR"), including Maryland and Delaware, asking EPA to add nine upwind states to the OTR. 82 Fed. Reg. 51,238 (Nov. 3, 2017).[48] Inclusion in the OTR would require the upwind states to impose controls in-state to reduce ozone precursor pollutants and the resulting contributions to downwind ozone. In its denial of the 176A petition, EPA stated that, "the most efficient way to address any remaining 2008 ozone NAAQS interstate transport problems is to continue to address any required reductions through a combination of tailored programs," including the CSAPR Update, good neighbor SIPs, and, if appropriate, section 126 petitions. *Id*. at 51,245-46. Nevertheless, EPA is now proposing to deny the 126 petitions and most recently foreclosed the possibility of any further reductions from good neighbor SIPs.

On July 10, 2018, EPA proposed a rule determining that, based on projected modeling for the year 2023, states and EPA have "no outstanding, unfulfilled obligation under" the good neighbor provision as it applies to the 2008 ozone NAAQs. 83 Fed. Reg. 31915, 31916/1 (July 10, 2018). EPA's reliance on 2023 modeling is arbitrary and capricious in that it ignores the ozone seasons between now and 2023, as well as the attainment deadlines for the ozone NAAQS. Furthermore, the 2023 modeling itself is flawed and relies on increasingly inaccurate assumptions. *See infra section I.*

Thus, in the face of evidence showing continued nonattainment of ozone, as well as difficulty maintaining NAAQS, in downwind states due in part to emissions contributions from upwind states, EPA has chosen to reject all CAA petitions from the states and to further foreclose any upwind state action via good neighbor SIPs through its proposed rule on July 10th. It is arbitrary and capricious for EPA to continuously point to separate CAA provisions as an excuse for inaction on all opportunities to adequately address the ozone transport problem. Taken as a whole, EPA's action and inaction on interstate ozone transport, and proposing that alternative sections of the CAA could resolve the issue—while successively rejecting the use of each of those sections in related actions—kicks the can down the road to 2023 and jeopardizes human health in the interim.

Conclusion

[48] *See also* Petition to the U.S. EPA for the Addition of Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, Virginia, and West Virginia to the Ozone Transport Region Established Pursuant to Section 184 of the Federal Clean Air Act as Permitted by Section 176A of the Federal Clean Air Act (as amended Dec. 10, 2013), *available at* http://www.ct.gov/deep/lib/deep/air/176a/Petition__2013dec10.pdf.

For the reasons discussed above, the NGOs respectfully urge EPA to reconsider its proposed denial of the section 126(b) petitions, and grant the 126(b) petitions.

Sincerely,

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