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August 31, 2018

Honorable Andrew R. Wheeler
Acting Administrator
U.S. Environmental Protection Agency
Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Proposed Determination Regarding Good Neighbor Obligations for the 2008 Ozone NAAQS; Docket ID No. EPA-HQ-OAR-2018-0225.

Dear Acting Administrator Wheeler:

The Midwest Ozone Group (MOG) is pleased to have the opportunity to comment in support of EPA's proposed rule to determine that the Cross-State Air Pollution Rule Update for the 2008 ozone NAAQS ("CSAPR Update") fully addresses certain obligations under the Clean Air Act section 110(a)(2)(D)(i)(I) regarding the interstate transport for the 2008 ozone NAAQS. 83 Federal Register 31915 (July 10, 2018).

MOG is an affiliation of companies, trade organizations, and associations that draws upon its collective resources to seek solutions to the development of legally and technically sound air quality programs.[1] MOG's primary efforts are to work with policy makers in evaluating air quality policies by encouraging the use of sound science. MOG has been actively engaged in a variety of EPA issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules, NAAQS standards, nonattainment designations, petitions under Sections 176A and 126 of the Clean Air Act, NAAQS implementation guidance, the development of Good Neighbor state implementation plans and related regional haze issues. MOG members and participants operate a variety of emission sources including more than 75,000 MW of fossil fuel -fired and coal-refuse fired electric power generation in more than ten states. They are concerned about the development of

[1] The members of and participants in the Midwest Ozone Group include: American Coalition for Clean Coal Electricity, American Electric Power, American Forest & Paper Association, American Wood Council, Ameren, Alcoa, Appalachian Region Independent Power Producers Association (ARIPPA), ArcelorMittal, Associated Electric Cooperative, Citizens Energy Group, Council of Industrial Boiler Owners, Duke Energy, East Kentucky Power Cooperative, FirstEnergy, Indiana Energy Association, Indiana Utility Group, LGE / KU, National Lime Association, Ohio Utility Group, Olympus Power, and City Water, Light and Power (Springfield IL).

technically or legally unsubstantiated interstate air pollution actions and the impacts of those actions on their facilities, their employees, their contractors, and the consumers of their products.

While the attached comments will identify several factors that support EPA's proposed rule, we will highlight four in this letter.

1. **EPA has correctly determined that the CSAPR Update Rule, in combination with existing additional on-the-books controls, fully satisfies the requirements of CAA section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS.**

The issue being addressed in the proposed rule, is whether existing measures satisfy the Good Neighbor requirements of Section 110(a)(2)(D)(i)(I) which prohibits a state from significantly contributing to nonattainment or interfering with maintenance of any primary or secondary NAAQS in another state. EPA's proposed rule correctly notes that 2023 is the appropriate analytic year for the evaluation of ozone transport issues related to the 2008 ozone NAAQS. EPA is also correct that the proposed rule is justified based in part on EPA's October 27, 2017, guidance memorandum, which finds that there are no downwind ozone air quality problems related to the 2008 ozone NAAQS. On the basis of these modeling results, there is no reason to conduct any further analysis of the four step process employed by EPA to assess interstate transport. This conclusion is substantiated for all monitors in the East.

2. **Independent State-of-the-Art Modeling by Alpine Geophysics on behalf of MOG Supports EPA's Conclusion That All Monitors in the East Will Be In Attainment With the 2008 Ozone NAAQS.**

Beyond the modeling work performed by EPA, Alpine Geophysics has performed modeling on behalf of MOG which also demonstrates that there are no downwind monitors that will exceed the 2008 ozone NAAQS. Specifically, all sites identified in the final CSAPR Update Rule are predicted to be well below the 2008 ozone NAAQS by 2023. On the bases of these modeling results and those of EPA, there is no reason to conduct any further analysis of the Good Neighbor SIP requirements. This conclusion is reached not only regarding the monitors linked to the Cross State Air Pollution Rule (CSAPR) Update affected states, but also for all monitors in the East.

3. **Emission trends in the CSAPR Update region have been decreasing for many years and will continue to do so in the immediate future.**

NOx emissions have been dramatically reduced in recent years. These NOx emission reductions will continue as the result of "on-the-books" regulatory programs already in place. As are pointed out in these comments, total annual anthropogenic NOx emissions were estimated to have declined by 29% between 2011 and 2017 over the CSAPR domain and are predicted to decline by 43% (an additional 1.24 million tons) between 2011 and 2023.

When looking exclusively at the estimated EGU emissions used in these modeling platforms, even greater decreases in annual NOx emissions are noted between 2011 and 2017 (561,216 tons or 40% reduction CSAPR-domain wide) and between 2011 and 2023 (704,508 tons or 51% reduction). These reductions are particularly significant because the CSAPR Update Rule focuses exclusively on EGU sources.

Importantly, the EGU annual NOx emissions assumed in EPA's modeling for 2017 of 831,466 tons are much greater than the actual EGU CEM-reported emissions in 2017 which were only 701,913 tons (an overestimate of 129,553 tons or 18%). Remarkably, the actual EGU NOx emissions in 2017 of 701,913 tons are very nearly at the emission level that EPA has estimated for the sources in 2023 – 688,175 tons. These data conclusively demonstrate the conservative nature of EPA's modeling.

4. Mobile sources have the most significant impact on ozone concentrations at the problem monitors identified in the CSAPR Update Rule.

While the CSAPR Update Rule addresses only emissions from EGU sources, it is NOx and volatile organic compound (VOC) emissions from on-road and non-road mobile sources that have the most significant impact on ozone concentrations at the problem monitors identified in the CSAPR Update Rule.

EPA recognized the significance of mobile source emissions in the preamble to this proposal in the following statements:

> Mobile sources also account for a large share of the NOx emissions inventory (i.e., about 7.3 million tons per year in the 2011 base year, which represented more than 50% of continental U.S. NOx emissions), and the EPA recognizes that emissions reductions achieved from this sector as well can reduce transported ozone pollution. The EPA has national programs that serve to reduce emissions from all contributors to the mobile source inventory (i.e., projected NOx emissions reductions of about 4.7 million tons per year between the 2011 base year and the 2023 future analytical year). A detailed discussion of the EPA's mobile source emissions reduction programs can be found at www.epa.gov/otaq.
>
> In light of the regional nature of ozone transport discussed herein, and given that NOx emissions from mobile sources are being addressed in separate national rules, in the CSAPR Update (as in previous regional ozone transport actions) the EPA relied on regional analysis and required regional ozone season NOx emissions reductions from EGUs to address interstate transport of ozone. [83 FR 31918, Jul. 10, 2018]

We strongly agree with EPA that mobile source emissions are the dominant contributor to predicted ozone concentrations across the nation. Even though all monitors in the East are achieving compliance with the 2008 ozone NAAQS, we urge EPA to account for these emissions

and to recognize the need for additional reductions in onroad and nonroad mobile source emissions as an additional element of conservatism in this proposal and as a critical element in the effort to apportion compliance obligations associated with the 2015 ozone NAAQS.

Conclusion

As is stated in detail in the attached comments, EPA is correct in making the determination that there is no obligation to establish additional requirements for stationary sources, including electric generating units (EGUs), to further reduce transported ozone pollution under CAA section 110(a)(2)(D)(i)(I) with regard to the 2008 ozone NAAQS. The Midwest Ozone Group urges EPA to finalize the rule as proposed as a conservative demonstration that the applicable requirements of the Clean Air Act have been satisfied.

Very truly yours,

David M. Flannery
Legal Counsel
Midwest Ozone Group

cc: Docket ID No. EPA-HQ-OAR-2018-0225

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COMMENTS OF THE MIDWEST OZONE GROUP REGARDING EPA'S PROPOSED DETERMINATION REGARDING GOOD NEIGHBOR OBLIGATIONS FOR THE 2008 OZONE NAAQS

DOCKET ID NO. EPA–HQ–OAR–2018–0225

AUGUST 31, 2018

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COMMENTS OF THE MIDWEST OZONE GROUP REGARDING EPA'S PROPOSED DETERMINATION REGARDING GOOD NEIGHBOR OBLIGATIONS FOR THE 2008 OZONE NAAQS DOCKET ID NO. EPA–HQ–OAR–2018–0225.[1]

83 FEDERAL REGISTER 31915

The Midwest Ozone Group (MOG) is pleased to have the opportunity to comment on EPA's proposed rule to determine that the Cross-State Air Pollution Rule Update ("CSAPR Update") for the 2008 ozone National Ambient Air Quality Standard (NAAQS) fully addresses certain state obligations under the Clean Air Act (CAA) section 110(a)(2)(D)(i)(I) regarding the interstate transport for the 2008 ozone NAAQS. 83 Federal Register 31915 (July 10, 2018).

MOG is an affiliation of companies, trade organizations, and associations that draws upon its collective resources to seek solutions to the development of legally and technically sound air quality programs.[2] MOG's primary efforts are to work with policy makers in evaluating air quality policies by encouraging the use of sound science. MOG has been actively engaged in a variety of EPA issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules, NAAQS standards, nonattainment designations, petitions under Sections 176A and 126 of the Clean Air Act, NAAQS implementation guidance, the development of Good Neighbor state implementation plans (SIPs) and related regional haze issues. MOG members and participants operate a variety of emission sources including more than 75,000 MW of coal-fired and coal-refuse fired electric power generation in more than ten states. They are concerned about the development of technically or legally unsubstantiated interstate air pollution actions and the impacts of those actions on their facilities, their employees, their contractors, and the consumers of their products.

For the reasons that are set forth in these comments, MOG fully supports EPA's proposed rule finding that the CSAPR Update is a full remedy with respect to the 2008 ozone NAAQS.

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[1] Comments or questions about this document should be directed to David M. Flannery, Kathy G. Beckett, or Edward L. Kropp, Legal Counsel, Midwest Ozone Group, Steptoe & Johnson PLLC, 707 Virginia Street East, Charleston West Virginia 25301; 304-353-8000; dave.flannery@steptoe-johnson.com and kathy.beckett@steptoe-johnson.com and skipp.kropp@steptoe-johnson.com respectively. These comments were prepared with the technical assistance of Alpine Geophysics, LLC

[2] The members of and participants in the Midwest Ozone Group include: American Coalition for Clean Coal Electricity, American Electric Power, American Forest & Paper Association, American Wood Council, Ameren, Alcoa, Appalachian Region Independent Power Producers Association (ARIPPA), ArcelorMittal, Associated Electric Cooperative, Citizens Energy Group, Council of Industrial Boiler Owners, Duke Energy, East Kentucky Power Cooperative, FirstEnergy, Indiana Energy Association, Indiana Utility Group, LGE / KU, National Lime Association, Ohio Utility Group, Olympus Power, and City Water, Light and Power (Springfield IL).

1. EPA has correctly determined that the CSAPR Update Rule, in combination with existing additional on-the-books controls, fully satisfies the requirements of CAA section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS.

EPA's proposed "Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard"[3] correctly concludes that the states which do not yet have approved Good Neighbor SIPs related to the 2008 ozone NAAQS "are not expected to contribute significantly to nonattainment in, or interfere with maintenance by, any other state with regard to the 2008 ozone NAAQS." EPA's finding was based on the modeling results set forth its October 27, 2017 memorandum which found no 2008 ozone NAAQS nonattainment or maintenance areas outside California.[4]

As a result of this finding, this action proposes minor revisions to the existing CSAPR Update regulations to identify that the CSAPR Update FIPs fully addresses CAA section 110(a)(2)(D)(i)(I) requirements to prevent the transport of ozone pollution and ozone precursors. The proposed determination would apply to states currently subject to CSAPR Update FIPs (federal implementation plans) as well as any states for which EPA has approved replacement of CSAPR Update FIPs with CSAPR Update SIPs.

2. EPA's proposed rule correctly notes that 2023 is the appropriate analytic year for the evaluation of ozone transport issues related to the 2008 ozone NAAQS.

EPA's selection of 2023 as the future analytic year for this proposal was appropriate. Consideration both of applicable attainment dates and the time needed to feasibly implement any new NOx control strategy is critical to this determination. Because it is not possible to meet the moderate area attainment date, EPA is correct in using the subsequent attainment dates for the 2008 ozone NAAQS which would be July 20, 2021 for Serious areas and July 20, 2027 for Severe areas. To avoid concerns about over-control, EPA determined the time duration that would be needed to implement any new control requirements reaching the conclusion that four years would be appropriate for electric generating units (EGUs) and non-EGU stationary sources from December 2018 (the date of promulgation of a final rule mandating such controls. MOG supports EPA's conclusion that any such controls could not be implemented before 2023.

3. Independent State-of-the-Art Modeling by Alpine Geophysics on behalf of MOG Supports EPA's Conclusion That All Monitors in the East Will Be In Attainment With the 2008 Ozone NAAQS.

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[3] https://www.epa.gov/airmarkets/proposed-determination-regarding-good-neighbor-obligations-2008-ozone-national-ambient

[4] Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), by Stephen D. Page, October 27, 2017 (https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf).

The issue being addressed in the proposed Good Neighbor SIP, is whether these existing measures also satisfy the Good Neighbor requirements of Section 110(a)(2)(D)(i)(I) which prohibits a state from significantly contributing to nonattainment or interfering with maintenance of any primary or secondary NAAQS in another state. As was identified in the October 27, 2017, memorandum of EPA's Stephen D. Page[5], a four step process is to be used by EPA to address Good Neighbor requirements. These four steps are:

Step 1: identify downwind air quality problems;

Step 2: identify upwind states that contribute enough to those downwind air quality problems to warrant further review and analysis;

Step 3: identify the emissions reductions necessary to prevent an identified upwind state from contributing significantly to those downwind air quality problems; and

Step 4: adopt permanent and enforceable measure needed to achieve those emission reductions.

Beyond the modeling work performed by EPA, Alpine Geophysics performed modeling on behalf of MOG which also demonstrates that there are no downwind air quality problems related to the 2008 ozone NAAQS. On the basis of these modeling results, there is no reason to conduct any further analysis of the four step process. This conclusion is reached not only regarding the monitors linked to the Cross State Air Pollution Rule (CSAPR) Update, but also for all monitors in the East.

The December 2017 technical support document related to the Alpine Geophysics modeling is attached to these comments and identified as Exhibit A and is specifically incorporated into these comments.[6] As can be seen from a review of Exhibit A, all sites identified in the final CSAPR Update Rule are predicted to be well below the 2008 ozone standard by 2023. The table below provides the GNS 2023 future year average and maximum design value modeling results from the Alpine Geophysics' analysis for the eastern states "problem" monitors. Based on these modelled results, none of the problem monitors identified in the CSAPR Update Rule are predicted to be in nonattainment or have maintenance issues in 2023. Consequently, none of the states are required to estimate their contributions to these monitors.

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[5] Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), by Stephen D. Page, October 27, 2017 (https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf).

[6] "Good Neighbor" Modeling for the 2008 8-Hour Ozone State Implementation Plans, Final Modeling Report, by Alpine Geophysics, LLC, December 2017 (http://www.midwestozonegroup.com/files/Ozone_Modeling_Results_Supporting_GN_SIP_Obligations_Final_Dec_2017_.pdf.

GNS Modeling results at Final CSAPR Update-identified problem monitors (ppb).

Monitor ID	State	County	2009-2013 Base Period Average Design Value (ppb)	2009-2013 Base Period Maximum Design Value (ppb)	2023 Base Case Average Design Value (ppb)	2023 Base Case Maximum Design Value (ppb)
Nonattainment Monitors						
90019003	Connecticut	Fairfield	83.7	87	72.7	75.6
90099002	Connecticut	New Haven	85.7	89	71.2	73.9
480391004	Texas	Brazoria	88.0	89	74.0	74.9
484392003	Texas	Tarrant	87.3	90	72.5	74.8
484393009	Texas	Tarrant	86.0	86	70.6	70.6
551170006	Wisconsin	Sheboygan	84.3	87	70.8	73.1
Maintenance Monitors						
90010017	Connecticut	Fairfield	80.3	83	69.8	72.1
90013007	Connecticut	Fairfield	84.3	89	71.2	75.2
211110067	Kentucky	Jefferson	85.0	85	70.1	70.1
240251001	Maryland	Harford	90.0	93	71.4	73.8
260050003	Michigan	Allegan	82.7	86	69.0	71.8
360850067	New York	Richmond	81.3	83	71.9	73.4
361030002	New York	Suffolk	83.3	85	72.5	74.0
390610006	Ohio	Hamilton	82.0	85	65.0	67.4
421010024	Pennsylvania	Philadelphia	83.3	87	67.3	70.3
481210034	Texas	Denton	84.3	87	69.7	72.0
482010024	Texas	Harris	80.3	83	70.4	72.8
482011034	Texas	Harris	81.0	82	70.8	71.6
482011039	Texas	Harris	82.0	84	71.8	73.6

As demonstrated by the modeling of Alpine Geophysics and EPA, there are no remaining non-attainment or maintenance areas in the East. All upwind states identified in the final CSAPR Update are meeting the requirements of CAA Section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS.

4. Emission trends in the CSAPR Update region have been decreasing for many years and will continue to do so in the immediate future.

NOx emissions have been dramaticaly reduced in recent years. These NOx emission reductions will continue as the result of "on-the-books" regulatory programs already required of sources by states and EPA.

Set forth below are tables developed from EPA modeling platform summaries[7] illustrating the estimated total anthropogenic emission reduction and EGU-only emission reduction in the several eastern states. As can be seen in the first table, total annual anthropogenic NOx emissions are estimated to have declined by 29% between 2011 and 2017 over the CSAPR domain and are predicted to have declined by 43% (an additional 1.24 million tons) between 2011 and 2023.

Final CSAPR Update Modeling Platform Anthropogenic NOx Emissions (Annual Tons).

	Annual Anthropogenic NOx Emissions (Tons)			Emissions Delta (2017-2011)		Emissions Delta (2023-2011)	
State	**2011**	**2017**	**2023**	**Tons**	**%**	**Tons**	**%**
Alabama	359,797	220,260	184,429	139,537	-39%	175,368	-49%
Arkansas	232,185	168,909	132,148	63,276	-27%	100,037	-43%
Illinois	506,607	354,086	293,450	152,521	-30%	213,156	-42%
Indiana	444,421	317,558	243,954	126,863	-29%	200,467	-45%
Iowa	240,028	163,126	124,650	76,901	-32%	115,377	-48%
Kansas	341,575	270,171	172,954	71,404	-21%	168,621	-49%
Kentucky	327,403	224,098	171,194	103,305	-32%	156,209	-48%
Louisiana	535,339	410,036	373,849	125,303	-23%	161,490	-30%
Maryland	165,550	108,186	88,383	57,364	-35%	77,167	-47%
Michigan	443,936	296,009	228,242	147,927	-33%	215,694	-49%
Mississippi	205,800	128,510	105,941	77,290	-38%	99,859	-49%
Missouri	376,256	237,246	192,990	139,010	-37%	183,266	-49%
New Jersey	191,035	127,246	101,659	63,789	-33%	89,376	-47%
New York	388,350	264,653	230,001	123,696	-32%	158,349	-41%
Ohio	546,547	358,107	252,828	188,439	-34%	293,719	-54%
Oklahoma	427,278	308,622	255,341	118,656	-28%	171,937	-40%
Pennsylvania	562,366	405,312	293,048	157,054	-28%	269,318	-48%
Tennessee	322,578	209,873	160,166	112,705	-35%	162,411	-50%
Texas	1,277,432	1,042,256	869,949	235,176	-18%	407,482	-32%
Virginia	313,848	199,696	161,677	114,152	-36%	152,171	-48%
West Virginia	174,219	160,102	136,333	14,117	-8%	37,886	-22%
Wisconsin	268,715	178,927	140,827	89,788	-33%	127,888	-48%
CSAPR States	**8,651,264**	**6,152,990**	**4,914,012**	**2,498,274**	**-29%**	**3,737,252**	**-43%**

When looking exclusively at the estimated EGU emissions used in these modeling platforms, even greater percent decrease is noted between 2011 and 2017 (40% reduction CSAPR-domain wide) and between 2011 and 2023 (51% reduction). These reductions are particularly significant since the CSAPR Update Rule focus exclusively on EGU sources.

[7] 83 Fed. Reg. 7716 (February 22, 2018).

Final CSAPR Update Modeling Platform EGU NOx Emissions (Annual Tons).

	Annual EGU NOx Emissions (Tons)			Emissions Delta (2017-2011)		Emissions Delta (2023-2011)	
State	**2011**	**2017**	**2023**	**Tons**	**%**	**Tons**	**%**
Alabama	64,008	23,207	24,619	40,800	-64%	39,388	-62%
Arkansas	38,878	24,103	17,185	14,775	-38%	21,693	-56%
Illinois	73,689	31,132	30,764	42,557	-58%	42,926	-58%
Indiana	119,388	89,739	63,397	29,649	-25%	55,991	-47%
Iowa	39,712	26,041	20,122	13,671	-34%	19,590	-49%
Kansas	43,405	25,104	14,623	18,301	-42%	28,781	-66%
Kentucky	92,279	57,520	42,236	34,759	-38%	50,043	-54%
Louisiana	52,010	19,271	46,309	32,740	-63%	5,701	-11%
Maryland	19,774	6,001	9,720	13,773	-70%	10,054	-51%
Michigan	77,893	52,829	33,708	25,064	-32%	44,186	-57%
Mississippi	28,039	14,759	13,944	13,280	-47%	14,095	-50%
Missouri	66,170	38,064	44,905	28,106	-42%	21,265	-32%
New Jersey	7,241	2,918	5,222	4,323	-60%	2,019	-28%
New York	27,379	10,191	16,256	17,188	-63%	11,123	-41%
Ohio	104,203	68,477	37,573	35,727	-34%	66,630	-64%
Oklahoma	80,936	32,366	21,337	48,570	-60%	59,599	-74%
Pennsylvania	153,563	95,828	49,131	57,735	-38%	104,432	-68%
Tennessee	27,000	14,798	11,557	12,201	-45%	15,442	-57%
Texas	148,473	112,670	103,675	35,804	-24%	44,799	-30%
Virginia	40,141	7,589	20,150	32,553	-81%	19,992	-50%
West Virginia	56,620	63,485	46,324	(6,865)	12%	10,296	-18%
Wisconsin	31,881	15,374	15,419	16,507	-52%	16,462	-52%
CSAPR States	**1,392,682**	**831,466**	**688,175**	**561,216**	**-40%**	**704,508**	**-51%**

Importantly, these estimated 2017 emissions used in the EPA modeling are inflated as compared to the actual 2017 CEM-reported EGU emissions. As can be seen in the following table, when the CSAPR-modeled 2017 annual EGU emissions are compared to the actual CEM-reported 2017 annual EGU emissions, it becomes apparent that there is a significant domain-wide overestimation (129,000 annual tons NOx) of the predicted emissions for this category. The estimated emissions used for the EPA modeling effort vary from state-to-state between over- and under-estimated, domain-wide, CEM-reported annual NOx emissions ranging from 158% overestimation (2017 actual emissions are 61% of estimated emissions) for Pennsylvania to 54% underestimation (2017 actual emissions are 118% of estimated emissions) for Virginia with a domain-wide overestimation of 18% (129,553 tons) of annual NOx emissions from EGUs.

Final CSAPR Update Modeling Platform EGU NOx Emissions Compared to CEM-Reported EGU NOx Emissions (Annual Tons).

	Annual EGU NOx Emissions (Tons)			Emissions Delta 2017 CEM-2017 EPA	
State	**2011 EPA**	**2017 EPA**	**2017 CEM**	**Tons**	**%**
Alabama	64,008	23,207	24,085	878	4%
Arkansas	38,878	24,103	27,500	3,397	14%
Illinois	73,689	31,132	33,066	1,934	6%
Indiana	119,388	89,739	63,421	(26,318)	-29%
Iowa	39,712	26,041	22,564	(3,477)	-13%
Kansas	43,405	25,104	13,032	(12,072)	-48%
Kentucky	92,279	57,520	46,053	(11,467)	-20%
Louisiana	52,010	19,271	29,249	9,978	52%
Maryland	19,774	6,001	6,112	111	2%
Michigan	77,893	52,829	37,739	(15,090)	-29%
Mississippi	28,039	14,759	12,162	(2,597)	-18%
Missouri	66,170	38,064	49,692	11,628	31%
New Jersey	7,241	2,918	3,443	524	18%
New York	27,379	10,191	11,253	1,062	10%
Ohio	104,203	68,477	57,039	(11,438)	-17%
Oklahoma	80,936	32,366	21,761	(10,606)	-33%
Pennsylvania	153,563	95,828	37,148	(58,680)	-61%
Tennessee	27,000	14,798	18,201	3,402	23%
Texas	148,473	112,670	109,914	(2,756)	-2%
Virginia	40,141	7,589	16,545	8,957	118%
West Virginia	56,620	63,485	44,079	(19,406)	-31%
Wisconsin	31,881	15,374	17,856	2,482	16%
CSAPR States	**1,392,682**	**831,466**	**701,913**	**(129,553)**	**-16%**

These data demonstrate that the EGU annual NOx emissions assumed in EPA's modeling for 2017 of 831,466 tons are much greater than the actual EGU CEM-reported emissions in 2017 which were only 701,913 tons (an overestimate of 129,553 tons or 18%). Remarkably, the actual EGU NOx emissions in 2017 of 701,913 tons and very nearly at the emission level that EPA has estimated for the sources in 2023 – 688,175 tons.

5. Had current air modeling projections taken into account the significant emission reduction programs that are on-the-way or legally mandated to occur prior to 2023, even better air quality would have been demonstrated.

There are several NOx emission reductions programs that have not yet been included in the current modeling efforts related to 2023 ozone predictions. These programs, both individually and

collectively, will have a material effect on predicted air quality, particularly in the East. As part of its review of the adequacy of this proposed rule, we urge EPA to take note of these additional control programs and to adjust the emissions inventories used to perform any modeling to include these on-the books NOx reductions as part of the assessment of the adequacy of this proposed rule.

The State of Maryland has identified[8] nine such programs that have been recommended by the OTC for implementation by its member states to reduce both NO_X and VOC. These programs (set out below) have the potential to reduce a total of nearly 27,000 tons of ozone season NO_X and 22,000 tons of ozone season VOC emission reductions.

NO_X and VOC Reduction Programs

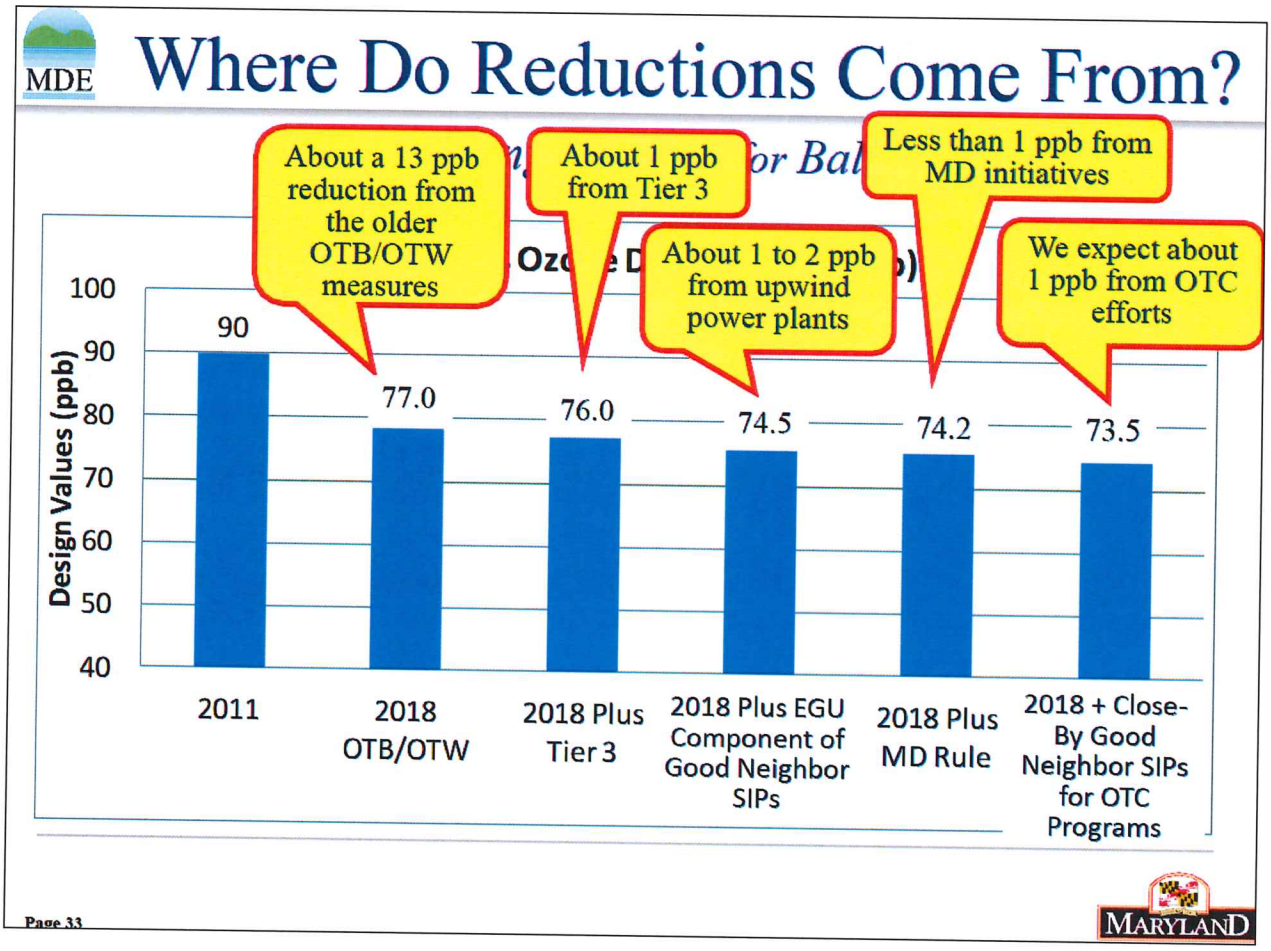
OTC Model Control Measures	Regional Reductions (tons per year)	Regional Reductions (tons per day)
Aftermarket Catalysts	14,983 (NO_X) 3,390 (VOC)	41 (NO_X) 9 (VOC)
On-Road Idling	19,716 (NO_X) 4,067 (VOC)	54 (NO_X) 11 (VOC)
Nonroad Idling	16,892 (NO_X) 2,460 (VOC)	46 (NO_X) 7 (VOC)
Heavy Duty I & M	9,326 (NO_X)	25 (NO_X)
Enhanced SMARTWAY	2.5%	
Ultra Low NOX Burners	3,669 (NO_X)	10 (NO_X)
Consumer Products	9,729 (VOC)	26 (VOC)
AIM	26,506 (VOC)	72 (VOC)
Auto Coatings	7,711 (VOC)	21 (VOC)

The air quality improvements that can be expected from certain of these programs is illustrated by the material presented by the State of Maryland at the New Jersey Clean Air Council

[8] http://midwestozonegroup.com/files/MOG_May_7_Final_050515.pptx

Hearing on April 14, 2015.[9] Maryland used the following chart to demonstrate how they believe these additional control programs will bring its monitors into attainment with the 2008 ozone NAAQS. As can be seen from the graphic used in that presentation, Maryland believes that it will be able to reach attainment with the 75 ppb ozone NAAQS with nothing more than on-the-books/on-the-way controls, Tier 3 controls, OTC measures and local Maryland initiatives – without additional reductions emission reductions from upwind states.

Maryland Source Category Reductions



Most recently, Maryland's 75 ppb Ozone Transport SIP dated July 25, 2018[10], confirms the additional emissions-reduction measures that Maryland has applied to such NOx sources as mobile sources, and industrial sources as well as several sources of VOCs. In addition, Maryland lists a series of "Voluntary/Innovative Control Measures" that it identifies as assisting in "the overall clean air goals in Maryland" although these measures have not been quantified.

[9] http://midwestozonegroup.com/files/MOGMay7Final050515.pdf
[10] https://mde.maryland.gov/programs/Air/AirQualityPlanning/Documents/OzoneTransportSIP_2008/Proposed_MD0.075ppmOzoneTransportSIP%20.pdf

These programs as well other local control programs will almost certainly improve ozone predictions in 2023. Accounting for the programs and the related emission reductions at this time offers additional support for EPA's conclusion that on-the-books control programs are all that is needed to address the 2008 ozone NAAQS. In addition, accounting for these programs will become critical to addressing the more stringent 2015 ozone NAAQS.

6. Legally mandated controls on sources located in designated nonattainment have not yet been included in EPA's modeling platform further contributing to the conservative nature of the agency's modeling results.

When an area is measuring nonattainment of a NAAQS, the Clean Air Act (CAA) requires that the effects and benefits of local controls on all source sectors be considered first, prior to pursuing controls of sources in upwind states. CAA §107(a) states that "[e]ach State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State." In addition, CAA §110(a)(1) requires that a state SIP "provides for implementation, maintenance, and enforcement" of the NAAQS "in each air quality control region . . . within such State." Moreover, by operation of law, additional planning and control requirements are applicable to areas that are designated to be in nonattainment.

This issue is important because upwind states must be confident this has occurred as they consider whether and to what extent they must submit approvable Good Neighbor state implementation plans to address the ozone NAAQS. This point has also been addressed by the Courts which have made it clear that additional control requirements in upwind states can only be legally imposed if, after consideration of local controls, there is a continuing nonattainment issue in downwind areas. [11]

EPA's current interstate transport modeling platforms fails to incorporate local emission reductions programs that are required to improve ambient ozone concentration by 2023 in designated nonattainment areas. Failure to have considered these requirements undoubtedly results in EPA's modeling being overly conservative in reaching the conclusion that no additional controls on upwind states are required.

The CAA addresses the affirmative obligations of the states to meet the deadlines for submittal and implementation of state implementation plans designed to specifically address their degree of nonattainment designation. Review of Section 172(c)(1) of the CAA provides that State Implementation Plans (SIPs) for nonattainment areas shall include "reasonably available control measures", including "reasonably available control technology" (RACT), for existing sources of emissions. Section 182(a)(2)(A) requires that for Marginal Ozone nonattainment areas, states shall revise their SIPs to include RACT. Section 182(b)(2)(A) of the CAA requires that for Moderate Ozone nonattainment areas, states must revise their SIPs to include RACT for each category of VOC

[11] *EME Homer et.al. v EPA*, 134 S. Ct. at 1608.

sources covered by a CTG document issued between November 15, 1990, and the date of attainment. CAA section 182(c) through (e) applies this requirement to States with ozone nonattainment areas classified as Serious, Severe and Extreme.

The CAA also imposes the same requirement on States in ozone transport regions (OTR). Specifically, CAA Section 184(b) provides that a state in the Ozone Transport Region (OTR) must revise their SIPs to implement RACT with respect to all sources of VOCs in the state covered by a CTG issues before or after November 15, 1990. CAA Section 184(a) establishes a single OTR comprised of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and the Consolidated Metropolitan Statistical Area (CMSA) that includes the District of Columbia.

Given the significance of the need for local controls to address areas that have been designated as nonattainment areas, MOG urges that this factor be considered as an additional factor supporting the conclusion that no further emission requirements are necessary to satisfy the requirements of CAA section 110(a)(2)(D)(i)(I).

7. Consideration of international emissions also adds support to EPA's conclusion that there is no further obligation to be placed on upwind states.

As an integral part of the agency's consideration of this proposed rule, we urge EPA to assess the impact of natural and manmade international emissions. In doing so, EPA has the opportunity and duty to develop a reasonable and reasoned approach to the issue of international emissions.

The CAA addresses international emissions directly. Section 179(B)(a) states that -

(a) Implementation plans and revisions

> Notwithstanding any other provision of law, an implementation plan or plan revision required under this chapter shall be approved by the Administrator if—
> (1) such plan or revision meets all the requirements applicable to it under the [12] chapter other than a requirement that such plan or revision demonstrate attainment and maintenance of the relevant national ambient air quality standards by the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, and
> (2) the submitting State establishes to the satisfaction of the Administrator that the implementation plan of such State would be adequate to attain and maintain the relevant national ambient air quality standards by the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, but for emissions emanating from outside of the United States.

[12] So in original. Probably should be "this".

In addition, addressing international emissions is particularly important to upwind states as they implement the requirements of CAA section 110(a)(2)(D)(i)(I).

The U.S. Supreme Court has ruled that it is essential that Good Neighbor states be required to eliminate only those amounts of pollutants that contribute to the nonattainment of NAAQS in downwind States. Specifically, the Supreme Court stated: "EPA cannot require a State to reduce its output of pollution by more than is necessary to achieve attainment in every downwind State. . ." EPA v. EME Homer City Generation, 134 S. Ct. 1584, 1608 (2014).

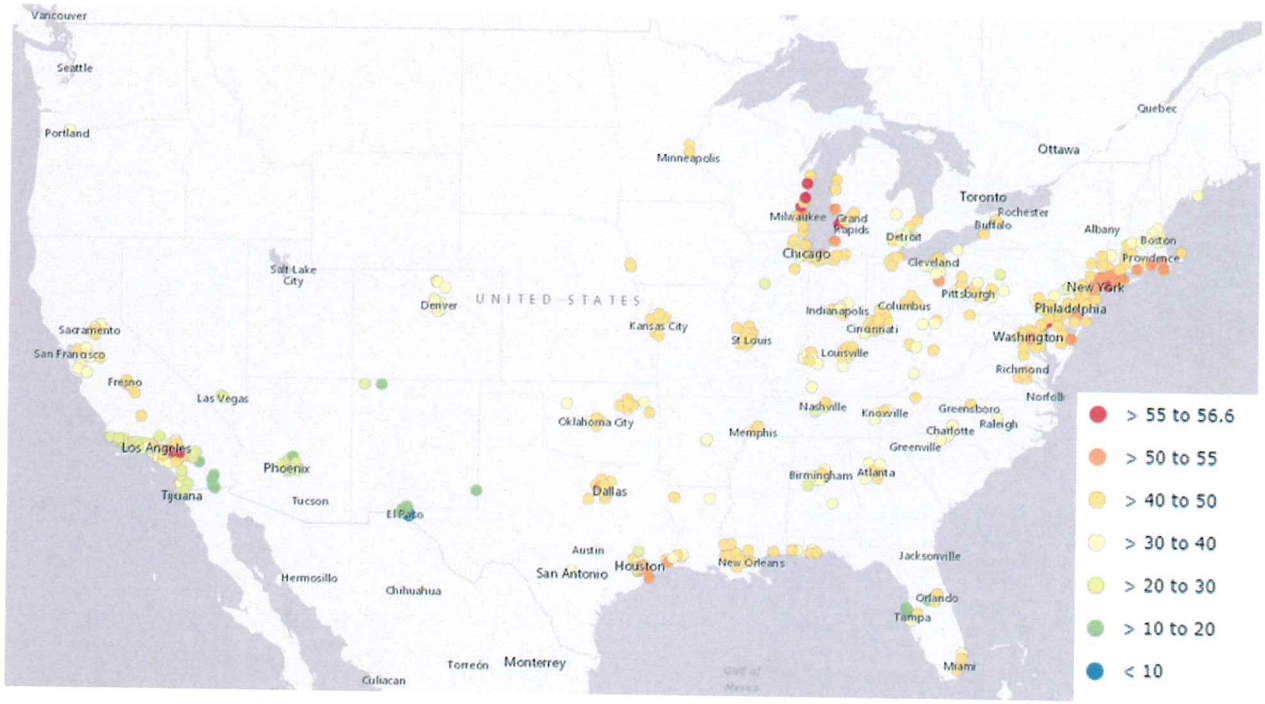
In addition, the D.C. Circuit has commented that ". . . the good neighbor provision requires upwind States to bear responsibility for their fair share of the mess in downwind States."[13] However, this "mess" seems to be related to international emissions for which upwind states and sources have no responsibility.

The D.C. Circuit has also stated "section 110(a)(2)(D)(i)(I) gives EPA no authority to force an upwind state to share the burden of reducing other upwind states' emissions," *North Carolina*, 531 F.3d at 921. Given this ruling by the Court it seems logical that the CAA would not require upwind states to offset downwind air-quality impacts attributable to other *countries'* emissions. Simply put, EPA over-controls a state if the state must continue reducing emissions *after* its linked receptors would attain in the absent of international emissions.

Projected 2023 ozone design values (ppb) excluding the contribution from boundary condition, initial condition, Canadian and Mexican emission sources shown below was prepared by Alpine Geophysics for MOG and depicts the projected 2023 8-hour ozone Design Values across the U.S. excluding the international emissions sector. The exclusion of international emissions was executed for all such emissions whether from international border areas or beyond. Note that this projection shows all monitors in the continental U.S. with a design value equal to or less than 56.6 ppb when international emissions are excluded. Modeling the U.S. emissions inventory projected to 2023 but without the impact of uncontrollable international emissions demonstrates that the CAA programs in the U.S. are performing as intended.

[13] *EME Homer City Generation, L.P. v EPA*, 696 F3.3d 7, 13 (D.C. Cir. 2012).

Projected 2023 ozone design values (ppb) excluding the contribution from boundary condition, initial condition, Canadian and Mexican emission sources

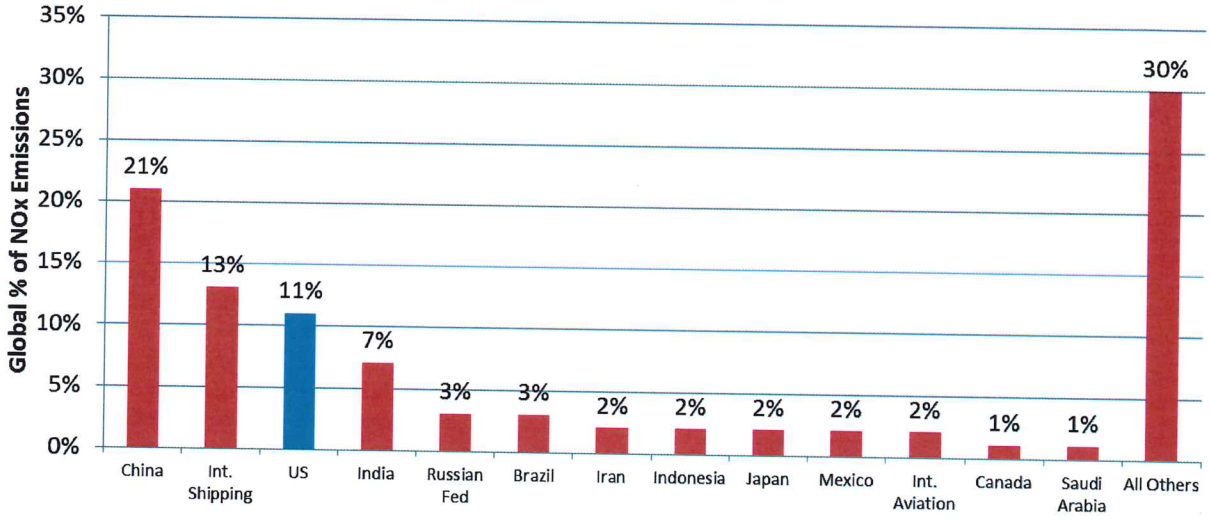


In addition to changing emissions resulting from growth and control in the continental U.S., EPA has identified updated projected emissions in both Canada and Mexico that have been integrated into the modeling platform used in this modeling.[14] EPA's modeling boundary conditions, however, have been held constant at 2011 levels. This is inconsistent with recent publications that indicate emissions from outside of the U.S., specifically contributing to international transport, are on the rise.[15]

In support of conclusion that boundary conditions are significantly impacted by international emissions, the following chart illustrates that 89% of the emissions being modeled to establish boundary conditions are related to international sources.[16]

[14] EPA-HQ-OAR-2016-0751-0009.
[15] Atmos. Chem. Phys., 17, 2943–2970(2017).
[16] European Commission, Joint Research Centre (JRC)/PBL Netherlands Environmental Assessment Agency. Emission Database for Global Atmospheric Research (EDGAR), https://protect-us.mimecast.com/s/N-G6CERPwVI3vMWjhNVQlp?domain=edgar.jrc.ec.europa.eu

Relative International NOx Emissions (% of Total) Used to Inform Global Model Boundary Concentrations of Ozone



There can be no doubt that international emissions have a significant impact on ozone measurements throughout the CSAPR Update Rule area. We urge that EPA take the occasion of this rule to establish a policy by which those emissions are accounted for in determining the ozone concentrations that will drive the agency's policy decisions and in connection with the current proposal offer additional conservatism to the conclusion that nothing more needs to be done by any upwind state to address the requirements of CAA section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS.

8. Mobile sources have the most significant impact on ozone concentrations at the problem monitors identified in the CSAPR Update Rule.

While the CSAPR Update Rule addresses only emissions from EGU sources, it must be recognized that it is emissions from mobile, including both on-road and non-road, and local area sources that have the most significant impact on ozone concentrations and the problem monitors identified in the CSAPR Update Rule.

EPA has recognized the significance of mobile source emissions in preamble to its full remedy proposal in the following statements:

> Mobile sources also account for a large share of the NOx emissions inventory (i.e., about 7.3 million tons per year in the 2011 base year, which represented more than 50% of continental U.S. NOx emissions), and the EPA recognizes that emissions reductions achieved from this sector as well can reduce transported ozone pollution. The EPA has national programs that serve to reduce emissions from all contributors to the mobile source inventory (i.e., projected NOx emissions reductions of about 4.7 million tons per year

between the 2011 base year and the 2023 future analytical year). A detailed discussion of the EPA's mobile source emissions reduction programs can be found at www.epa.gov/otaq.

In light of the regional nature of ozone transport discussed herein, and given that NOx emissions from mobile sources are being addressed in separate national rules, in the CSAPR Update (as in previous regional ozone transport actions) the EPA relied on regional analysis and required regional ozone season NOx emissions reductions from EGUs to address interstate transport of ozone. [83 FR 31918, Jul. 10, 2018]

We strongly agree with EPA that mobile source emissions are the dominant contributor to predicted ozone concentrations across the nation. We urge EPA to account for these sources as it proceeds to finalize this proposal and as it addresses the 2015 ozone NAAQS.

At the request of MOG, Alpine Geophysics has examined not only the relative contribution of mobile and local area sources to certain of the CSAPR Update problem monitors but also how a small reduction in these emissions could bring about significant additional reductions in ozone concentrations.

The following table presents the annual mobile source NOx emission totals (onroad plus nonroad) for eastern states as presented in the final CSAPR update emission summary files[17]. As can been seen in this table, consistent with EPA's national assessment of mobile source emissions, annual mobile source NOx emissions in this region comprise 51%, 41%, and 33% of the annual anthropogenic emission totals for 2011, 2017, and 2023, respectively.

[17] ftp://ftp.epa.gov/EmisInventory/2011v6/v3platform/reports/

Eastern State Mobile Source NOx Emissions (Annual Tons).

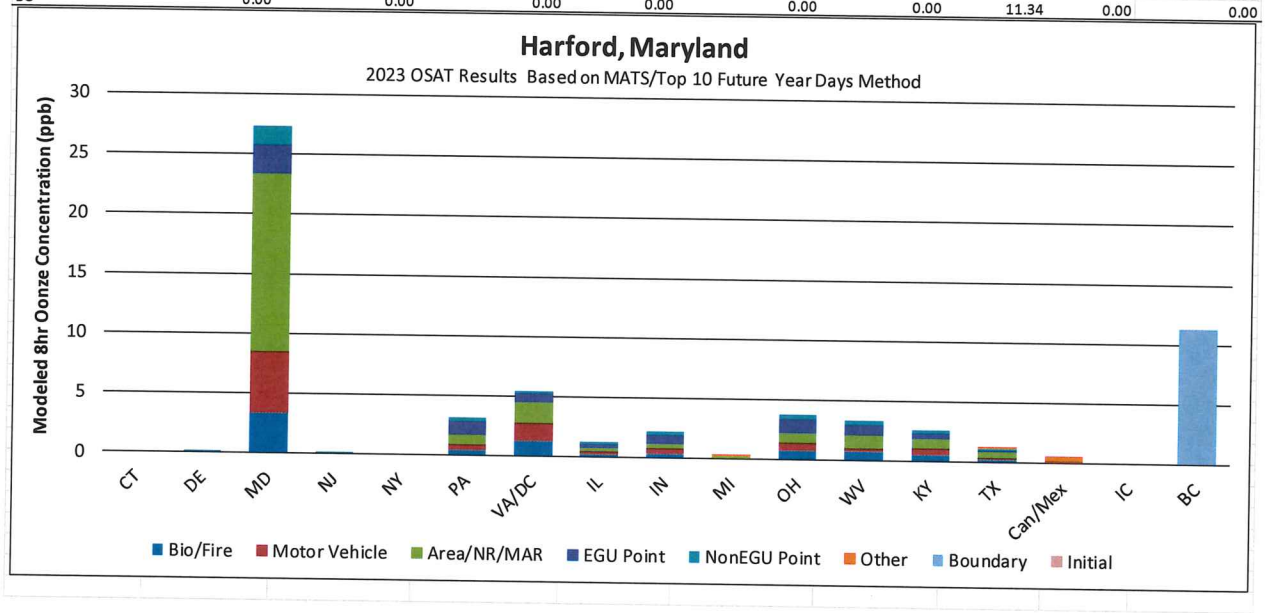
	Annual Anthropogenic NOx Emissions (Tons)			Annual Mobile Source NOx Emissions (Tons)			Mobile Sources as % of All Annual Emissions (%)		
State	**2011**	**2017**	**2023**	**2011**	**2017**	**2023**	**2011**	**2017**	**2023**
Alabama	359,797	220,260	184,429	175,473	88,094	54,104	49%	40%	29%
Arkansas	232,185	168,909	132,148	113,228	68,949	44,583	49%	41%	34%
Connecticut	72,906	46,787	37,758	49,662	26,954	18,718	68%	58%	50%
Delaware	29,513	18,301	14,511	17,788	10,387	6,819	60%	57%	47%
District of Columbia	9,404	6,052	4,569	7,073	3,947	2,500	75%	65%	55%
Florida	609,609	410,536	323,476	406,681	232,319	153,275	67%	57%	47%
Georgia	451,949	295,397	236,574	267,231	147,690	90,541	59%	50%	38%
Illinois	506,607	354,086	293,450	261,727	166,393	114,243	52%	47%	39%
Indiana	444,421	317,558	243,954	218,629	122,633	76,866	49%	39%	32%
Iowa	240,028	163,126	124,650	132,630	82,212	53,712	55%	50%	43%
Kansas	341,575	270,171	172,954	115,302	68,491	43,169	34%	25%	25%
Kentucky	327,403	224,098	171,194	139,866	80,244	50,633	43%	36%	30%
Louisiana	535,339	410,036	373,849	117,529	67,331	43,962	22%	16%	12%
Maine	59,838	42,918	32,186	34,933	18,380	12,240	58%	43%	38%
Maryland	165,550	108,186	88,383	103,227	60,164	38,922	62%	56%	44%
Massachusetts	136,998	90,998	73,082	83,398	45,031	30,508	61%	49%	42%
Michigan	443,936	296,009	228,242	250,483	135,434	88,828	56%	46%	39%
Minnesota	316,337	216,925	174,797	176,424	102,728	65,868	56%	47%	38%
Mississippi	205,800	128,510	105,941	108,198	57,751	34,561	53%	45%	33%
Missouri	376,256	237,246	192,990	219,505	122,137	75,380	58%	51%	39%
Nebraska	217,427	159,062	119,527	88,985	55,067	35,556	41%	35%	30%
New Hampshire	36,526	22,413	18,794	24,919	14,780	10,322	68%	66%	55%
New Jersey	191,035	127,246	101,659	133,073	75,538	51,231	70%	59%	50%
New York	388,350	264,653	230,001	224,454	130,023	92,171	58%	49%	40%
North Carolina	369,307	231,783	167,770	250,549	114,952	70,812	68%	50%	42%
North Dakota	163,867	135,009	128,864	57,289	37,071	23,956	35%	27%	19%
Ohio	546,547	358,107	252,828	311,896	168,799	100,058	57%	47%	40%
Oklahoma	427,278	308,622	255,341	139,550	79,830	50,525	33%	26%	20%
Pennsylvania	562,366	405,312	293,048	249,792	135,765	81,645	44%	33%	28%
Rhode Island	22,429	15,868	12,024	13,689	7,705	5,209	61%	49%	43%
South Carolina	210,489	134,436	104,777	132,361	73,359	44,886	63%	55%	43%
South Dakota	77,757	49,014	37,874	48,499	30,473	19,685	62%	62%	52%
Tennessee	322,578	209,873	160,166	213,748	122,738	77,135	66%	58%	48%
Texas	1,277,432	1,042,256	869,949	554,463	292,609	189,601	43%	28%	22%
Vermont	19,623	14,063	10,792	14,031	8,569	5,958	72%	61%	55%
Virginia	313,848	199,696	161,677	179,996	108,175	67,678	57%	54%	42%
West Virginia	174,219	160,102	136,333	48,294	27,487	17,494	28%	17%	13%
Wisconsin	268,715	178,927	140,827	167,753	100,814	67,201	62%	56%	48%
Eastern US Total	**11,455,243**	**8,042,552**	**6,411,386**	**5,852,332**	**3,291,024**	**2,110,555**	**51%**	**41%**	**33%**

Additionally, when source apportionment is applied to many of the problem monitors in the northeastern states, a distinct signal of mobile and local area source contribution to future year ozone concentrations is demonstrated.

Using the Harford, MD (240251001) monitor as an example and the 4km modeling and source apportionment methods outlined elsewhere[18], it can be seen in the following table and figure that area, nonroad, marine/air/rail (MAR) and onroad mobile source emission from within Maryland itself dominate the relative contribution to projected nonattainment.

Relative Contribution of Source Regions and Categories to Harford, MD Monitor.

Monitor	240251001	Harford, Maryland						Final CSAPR DV	71.1
	2023 OSAT Results (Modeled ppb) -- MATS/Top 10 Future Method								
Region	Bio/Fire	Motor Vehicle	Area/NR/MAR	EGU Point	NonEGU Point	Other	Boundary	Initial	Total Anthro
CT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE	0.02	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.05
MD	3.41	5.09	14.93	2.39	1.55	0.00	0.00	0.00	23.96
NJ	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.04
NY	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.02
PA	0.53	0.34	0.92	1.13	0.32	0.00	0.00	0.00	2.71
VA/DC	1.37	1.40	1.79	0.67	0.27	0.00	0.00	0.00	4.13
IL	0.32	0.17	0.33	0.34	0.22	0.00	0.00	0.00	1.06
IN	0.41	0.40	0.44	0.68	0.32	0.00	0.00	0.00	1.84
MI	0.06	0.07	0.11	0.05	0.05	0.01	0.00	0.00	0.27
OH	0.77	0.66	0.86	1.12	0.40	0.00	0.00	0.00	3.03
WV	0.81	0.24	1.15	0.74	0.41	0.00	0.00	0.00	2.55
KY	0.62	0.53	0.84	0.38	0.34	0.00	0.00	0.00	2.09
TX	0.29	0.14	0.44	0.16	0.15	0.03	0.00	0.00	0.89
Can/Mex	0.14	0.01	0.01	0.01	0.01	0.40	0.00	0.00	0.04
IC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
BC	0.00	0.00	0.00	0.00	0.00	0.00	11.34	0.00	0.00

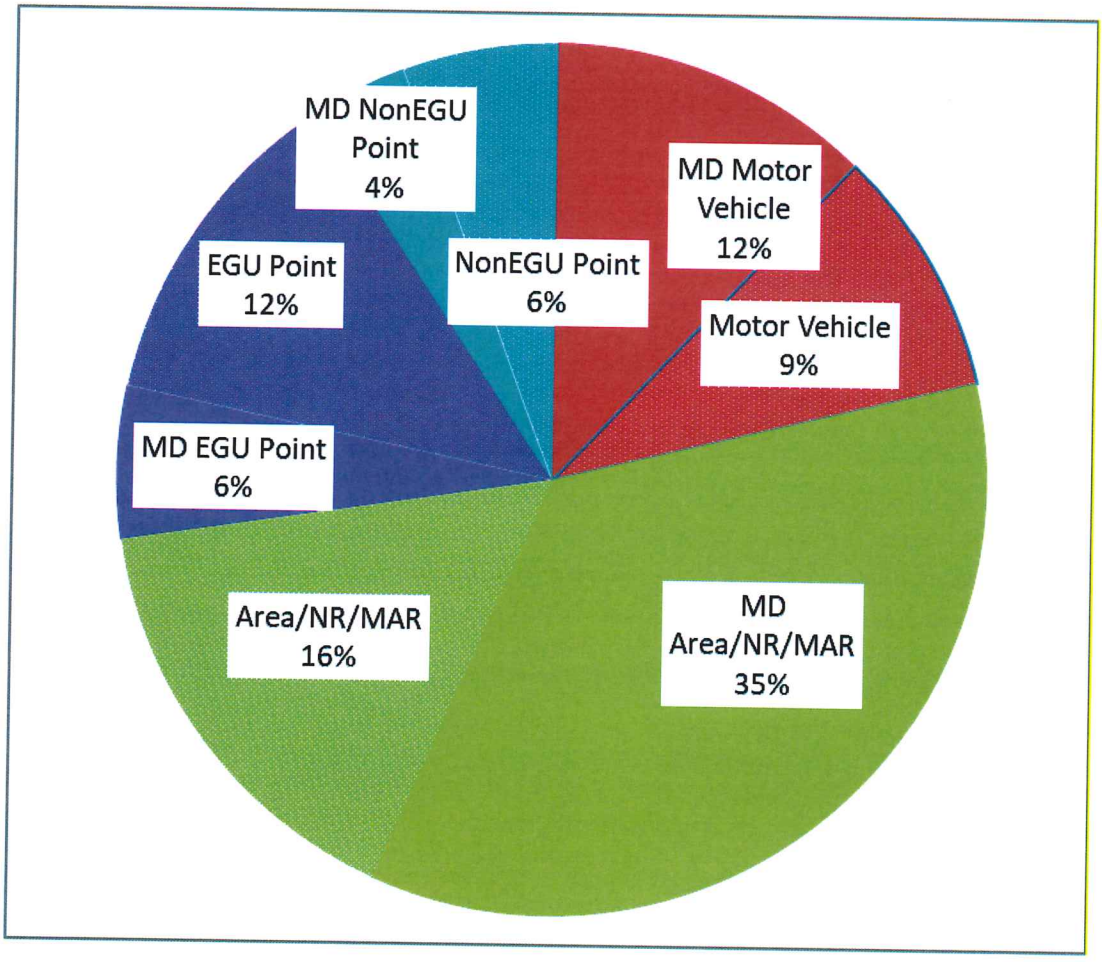


When focusing only on the anthropogenic contribution from the significant contributing states (1% of NAAQS or greater than or equal to 0.70 ppb), area/nonroad/MAR categories

[18] "Good Neighbor" Modeling for the 2008 8-Hour Ozone State Implementation Plans, Final Modeling Report, by Alpine Geophysics, LLC, December 2017 (http://www.midwestozonegroup.com/files/Ozone_Modeling_Results_Supporting_GN_SIP_Obligations_Final_Dec_2017_.pdf.

demonstrate more than half (51%; 35% from Maryland) of the total significant contribution from these states. As is shown in the following pie chart, an additional 21% of projected ozone from significant contributing state anthropogenic categories is estimated from onroad motor vehicle emissions. Of this 21%, 12% is estimated from onroad mobile source emissions originating in Maryland.

Relative Contribution of Anthropogenic Emission Categories from Significant Contributing States to Harford, MD Monitor.



To further the assessment of which regions and categories have the greatest impact on this monitor's future year ozone concentration, a review of the modeling platform used in the 4km modeling develops relationships between the State-source category specific OSAT modeling and the seasonal NOx emissions used to develop the ozone concentrations. Using monthly, county and source category specific emissions published by EPA[19], relational "impact factors" were developed using these data.

[19] ftp://ftp.epa.gov/EmisInventory/2011v6/v3platform/reports/2011en_and_2023en/

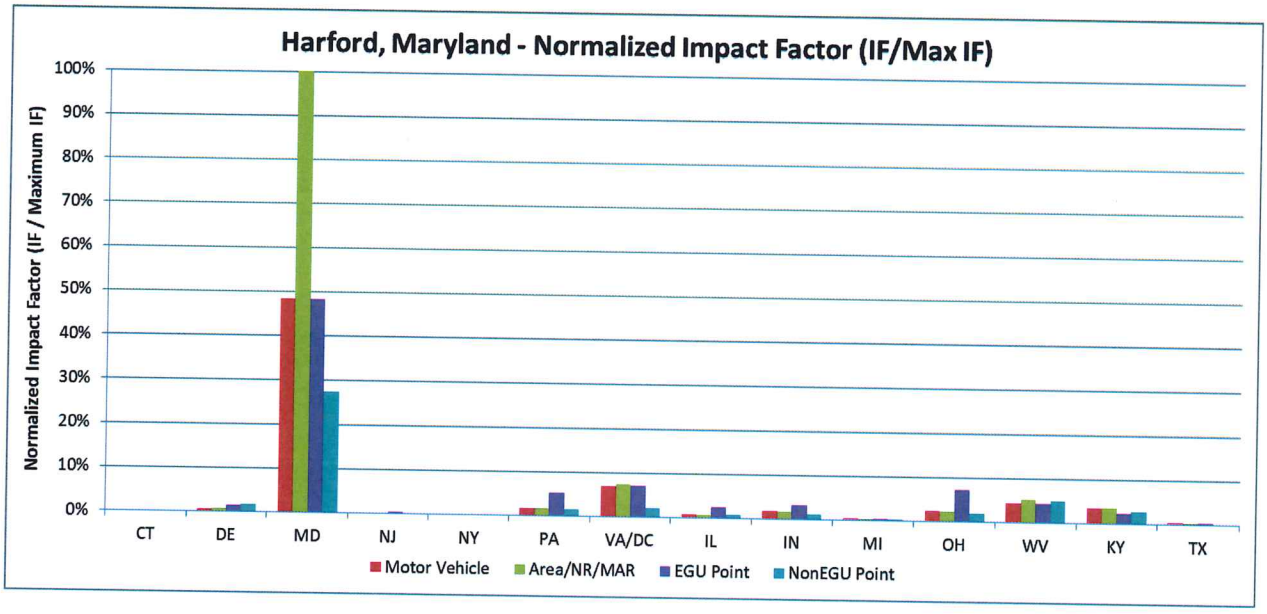
This value represents the relative contribution of modeled emissions (tons) to resultant ozone concentrations (in ppb).

Impact Factor (ppb/ton) = OSAT Contribution (ppb) / Emissions (tons)

A primary purpose for this calculation is to determine, at each monitor, from where and what source category, on a ppb per ton basis, we see the greatest relative contribution. In other words, to determine which source category, and from what state, has the greatest per ton NOx contribution to the monitor's modeled ozone concentrations.

After this calculation was conducted for each monitor, results to the maximum individual state/category contributor were normalized, so that in the comparisons, it could easily be identified the greatest ppb per ton state/source category and provide an easy way of determining which categories have greater relative impact compared to all others.

The chart below provides this normalized comparison of significant contributing state-category combinations to the Harford, MD monitor.



In addition to recognizing the usefulness of this impact factor in determining which states and categories are the largest ppb/ton contributors to each monitor, the results may be used in assisting policy makers in the development of control strategies and their relative impact on ozone concentrations at various locations.

As a further example using these impact factor calculations, and similar to EPA methods[20] with the Air Quality Assessment Tool, assuming a linear relationship of NOx emissions to ozone

[20] https://www.epa.gov/sites/production/files/2017-05/documents/ozone_transport_policy_analysis_final_rule_tsd.pdf

concentrations at low emission changes, we estimate that a 1.5% NOx emission reduction in Maryland's area, nonroad, and MAR category (226 NOx tons per ozone season) would have enough associated ozone concentration reduction (0.20 ppb) to bring the noted monitor into attainment at 70.9 ppb. Similarly, a reduction of 4% (or 426 tons NOx/ozone season) from onroad mobile source NOx emissions in Maryland alone would have the same ozone concentration impact (0.20 ppb). This compares to a 7% reduction from EGUs in all the other non-Maryland significant contributing states (PA, VA, DC, IL, IN, OH, WV, KY, and TX) and would be equivalent to an estimated 11,887 tons NOx per ozone season reduction from these sources.

The regulation of mobile sources is specifically addressed in the CAA section 209, which provides guidance on the management roles of mobile sources for the federal government, California and other states. Section 209(a) opens with the statement concerning on-road engines and vehicles, "No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part." Relative to non-road engines or vehicles, CAA 209(e) provides similar language.

The exception to these prohibitions is set forth in CAA §177 for California and any other state that chooses to adopt an "EPA-approved California control on emissions of new motor vehicles or engines." Regulation of new mobile-source emissions has been principally federally- driven, but states continue to have a role. *Engine Mfrs. Ass'n v. EPA*, 88 F.3d 1075, 1079 (D.C. Cir. 1996). The CAA §209(d) preserves the authority of the states to control, regulate, or restrict the use, operations, or movement of registered or licensed motor vehicles. The D.C. Circuit has interpreted this as maintaining state power to regulate pollution from motor vehicles once they are no longer new; for instance, through in-use regulations such as car pools and other incentive programs. *Id.* In response to the D.C. Circuit opinion, EPA clarified its position relative to state non-road regulatory authority in 40 CFR 89, Subpart A, Appendix A - State Regulation of Nonroad Internal Combustion Engines as follows:

> EPA believes that states are not precluded under section 209 from regulating the use and operation of nonroad engines, such as regulations on hours of usage, daily mass emission limits, or sulfur limits on fuel; nor are permits regulating such operations precluded, once the engine is no longer new. EPA believes that states are precluded from requiring retrofitting of used nonroad engines except that states are permitted to adopt and enforce any such retrofitting requirements identical to California requirements which have been authorized by EPA under section 209 of the Clean Air Act. [62 FR 67736, Dec. 30, 1997]

Given the dominant role of mobile sources in impacting on ozone air quality, it is incumbent on EPA and the downwind states to take full advantage of all of the authority provided to each of them under the CAA and to reduce mobile source emissions appropriately to bring about attainment with ozone NAAQS obligations. Where states, such as Maryland, have undertaken the imposition of

Cal LEV and similar controls, on mobile sources, it is critical that the VOC and NOx emission reductions associated with those programs be incorporated into EPA's modeling platform to be certain that the air quality impact of such controls is documented as a critical element in avoiding over-control in upwind states.

9. The CSAPR Update Rule and the related resolution of Good Neighbor SIP obligations are important to the resolution of other CAA alternatives for addressing interstate transport issues.

EPA's proposed action addressing the 2008 ozone NAAQS Good Neighbor SIPs addresses exactly the same provision of the Clean Air Act as does the authorization for the filing of petitions under section 126 of the CAA (CAA §110(a)(2)(D)(i)). Accordingly, EPA's proposal when finalized would effectively resolve all pending petitions related to the 2008 ozone NAAQS. This close relationship was addressed by EPA in its proposed denial of the Connecticut 126 petition involving the Brunner Island Plant when EPA stated[21]:

> Put another way, requiring additional reductions would result in eliminating emissions that do not contribute significantly to nonattainment or interfere with maintenance of the NAAQS, an action beyond the scope of the prohibition in CAA section 110(a)(2)(D)(i)(I) and therefore beyond the scope of EPA's authority to make the requested finding under CAA section 126(b). See EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1604 n.18, 1608-09 (2014) (holding the EPA may not require sources in upwind states to reduce emissions by more than necessary to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS in downwind states under the good neighbor provision).

CAA §126(b) provides –

> *Any state or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emit or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)(ii) …* [22]

CAA §110(a)(2)(D)(i) provides –

> *Each plan shall … contain adequate provisions … prohibiting … any source … from emitting any air pollutant in amounts which will … contribute significantly to non-attainment in, or interfere with maintenance by, any other state*

[19] 83 Fed. Reg. 7712 (February 22, 2018).

[20] *Appalachian Power Co. v. EPA*, 249 F.3d 1032 (D.C. Cir.) held this to be a scrivener's error and that the reference here was intended to be to section 110(a)(2)(D)(i) rather than to section 110(a)(2)(D)(ii) as written.

Thus, resolution of the question of interstate transport under CAA §110(a)(2)(D)(i) effectively and legally resolves any issues that might be the bases for petitions filed under CAA §126(b).

Conclusion.

Accordingly, the Midwest Ozone Group supports EPA's proposed rule and urges that the CSAPR Update Rule be determined to be a full remedy for addressing all matters related to the Good Neighbor and interstate transport requirements of the Clean Air Act with respect to the 2008 ozone NAAQS.