

# MIDWEST OZONE GROUP INITIAL IDENTIFICATION OF DEFICIENCIES IN THE NEW YORK 126 PETITION<sup>1</sup>

March 23, 2018

[http://www.midwestozonegroup.com/files/MOG\\_Initial\\_Deficiencies\\_in\\_NY\\_126\\_Petition\\_3.23.18.pdf](http://www.midwestozonegroup.com/files/MOG_Initial_Deficiencies_in_NY_126_Petition_3.23.18.pdf)

The Midwest Ozone Group<sup>2</sup> (MOG) has undertaken an initial review of the petition dated March 12, 2018, that was filed by the New York Department of Environmental Conservation (New York) with Scott Pruitt, Administrator, U.S. EPA (EPA) pursuant to Section 126 of Clean Air Act.

## Major Deficiencies in New York Petition

As can be seen below, MOG has identified many deficiencies of the New York petition including the use of outdated upwind source emission data, and the likelihood that the petition will not be pertinent when states and EPA act later this year to submit and approve “Good Neighbor” state implementation plans specifically directed at satisfying Clean Air Act requirements with respect to interstate transport. In addition, there are three deficiencies that go to the fundamental question of whether New York has an air quality problem that justifies the filing of the petition. Any one of these deficiencies results in the need for EPA to deny this petition. These three major deficiencies in the New York petition are:

- a. The petition does not address exceptional events. Consideration of exceptional events by EPA will show that all New York monitors currently attain the 2008 ozone NAAQS when monitoring data influenced by these exceptional events are excluded. See Item 7.
- b. The petition does not address international transport. Consideration of international emissions by EPA will show that “but for” international transport every monitor in New York would attain both the 2008 and 2015 ozone NAAQS. See Item 9.
- c. The petition fails to consider EPA’s most recent Good Neighbor modeling. EPA’s October 2017 Good Neighbor 12 km modeling analysis demonstrates that all of the New York monitors will attain the 2008 ozone NAAQS. MOG’s application of the EPA modeling to a 4 km grid demonstrates that all New York monitors will attain the 2015 ozone NAAQS. See Item 8.

For these reasons and others set forth below, the Midwest Ozone Group urges EPA to deny the New York 126 petition.

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<sup>1</sup> Questions or inquiries about these comments 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](mailto:dave.flannery@steptoe-johnson.com) and [kathy.beckett@steptoe-johnson.com](mailto:kathy.beckett@steptoe-johnson.com) and [skipp.kropp@steptoe-johnson.com](mailto:skipp.kropp@steptoe-johnson.com) respectively. These comments were prepared with the technical assistance of Alpine Geophysics, LLC.

<sup>2</sup> The members of and participants in the Midwest Ozone Group include: American Coalition for Clean Coal Electricity, American Electric Power, American Forest & Paper Association, Ameren, Alcoa, ARIPPA, 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, Ohio Utility Group, Olympus Power, and the Springfield (IL) City Water P&L.

## **1. Selection of Significantly Contributing States.**

The petition used photochemical air quality modeling performed by EPA in support of the 2016 CSAPR Update Rule to identify the 10 states that New York asserts are “significantly contributing states” in violation of the good neighbor provision of CAA Section 110(a)(2)(D)(i). However, the petition did not otherwise rely on any EPA generated or developed data in support of its petition. The 10 states initially identified as “significantly contributing” include:

Illinois,  
Indiana,  
Kentucky,  
Maryland,  
Michigan,  
New Jersey,  
Ohio,  
Pennsylvania,  
Virginia, and  
West Virginia.

## **2. Arbitrary Exclusion of New Jersey**

Even though New Jersey was identified by New York as a “significantly contributing” state based on EPA’s 2016 CSAPR Update Rule modeling, the petition excludes New Jersey from the states targeted by New York’s request for new controls. (See March 12, 2018 cover letter) This exclusion is remarkable because New Jersey’s contribution to New York’s air quality is greater than that of any other of the 10 “significantly contributing” states

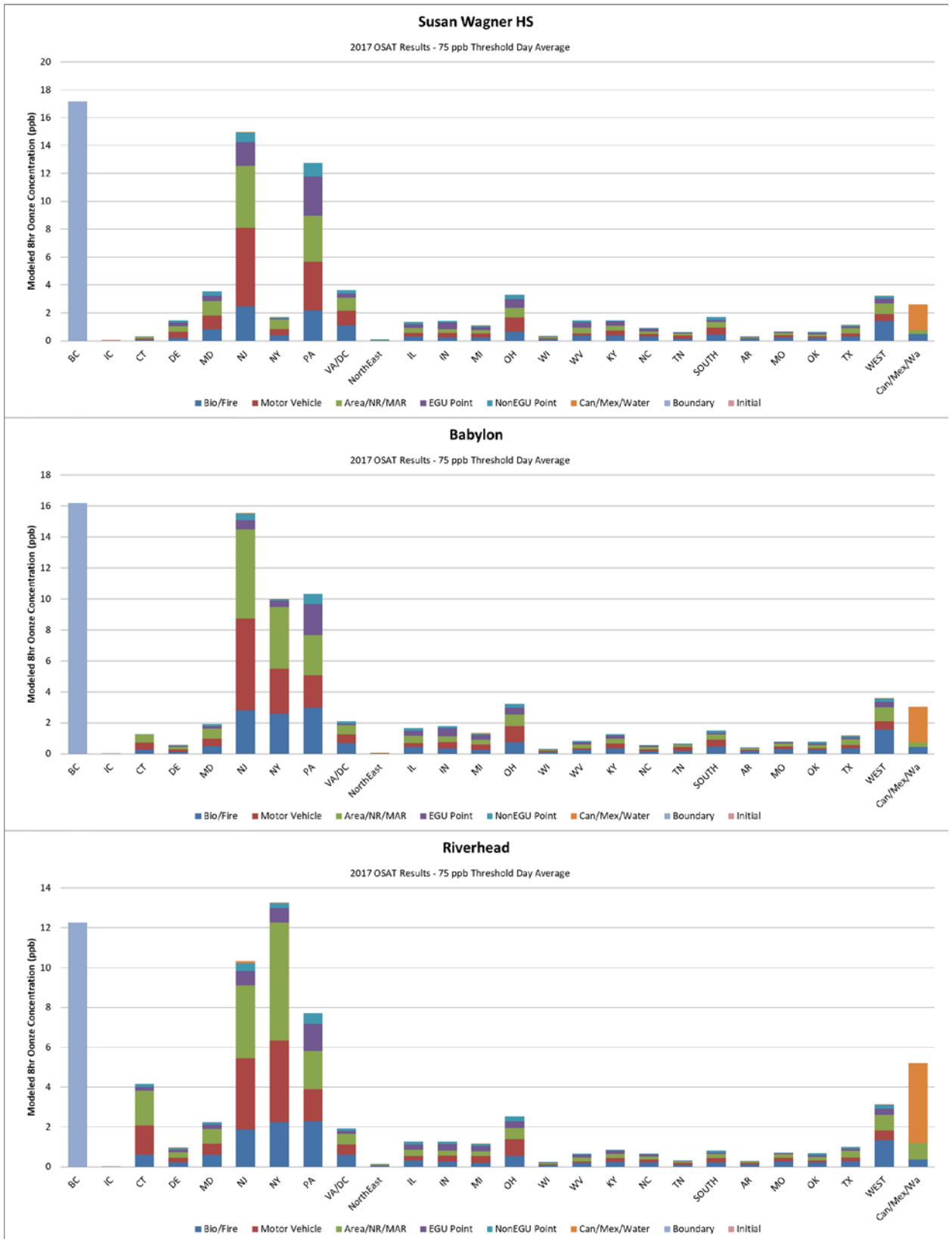
In excluding New Jersey, the New York petition states (page 14 of 17):

“New Jersey is excluded from this appendix since it did not contribute to any non-attainment or maintenance monitors.

However, as is shown in the following graphics, based on EPA’s 2016 CSAPR Update modeling<sup>3</sup>, New Jersey contributes more to the ozone concentrations in New York than any of the states targeted by the petition. Equally significant is that New Jersey’s impacts are overwhelmingly from motor vehicles and area and non-road sources.

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<sup>3</sup> [http://www.midwestozonogroup.com/files/Relative\\_Contribution\\_of\\_Upwind\\_Sources\\_on\\_Key\\_Monitors.pdf](http://www.midwestozonogroup.com/files/Relative_Contribution_of_Upwind_Sources_on_Key_Monitors.pdf)



**3. 2015 Ozone NAAQS Nonattainment Designations Have Not Yet Been Made**

The petition asks that EPA base its decision not only on the 2008 ozone NAAQS, but also on the 2015 ozone NAAQS – even though there has been no designation of which areas are to be considered in non-attainment with the 2015 ozone NAAQS. There is no legal basis for the petition to address the 2015 ozone NAAQS absent final non-attainment designations.

**4. The Petition Will be Mooted By 2008 Good Neighbor Plans**

While the petition acknowledges (p.6 of 17) the near-term deadlines for action by EPA on the Good Neighbor plans of the targeted states related to the 2008 ozone NAAQS, the petition fails to address the fact that action on these plans addresses exactly the same provision of the Clean Air Act as does their petition (CAA §110(a)(2)(D)(i) and would effectively moot their petition as to the 2008 ozone NAAQS.

**5. The Petition Will Be Mooted By 2015 Good Neighbor Plans**

The petition fails to acknowledge at all the October 1, 2018 deadline that is applicable to all target states for the submittal of Good Neighbor plans related to the 2015 ozone NAAQS which would also address CAA §110(a)(2)(D)(i) and effectively moot the relief requested in the petition with respect to that NAAQS.

**6. The Worst of New York’s Monitors Are Nearly Attaining the 2008 Ozone NAAQS**

While the petition mentions three monitors in the state that may have 2017 design values in excess of the 2008 ozone NAAQS level of 75 ppb, the design values for each of those monitors is only 76 ppb – 1 ppb above the 2008 ozone NAAQS. The petition, however, fails to take this 1 ppb increment into account in offering its proposed remedy. Failure to do so is a failure to avoid over-control that results from the imposition of an emission reduction obligation on upwind states that is more than is necessary to bring downwind states into attainment. The following are the preliminary 2017 design values for the three monitors that exceed to 2008 (75 ppb) ozone NAAQS:

		<b>Prelim 2017 DV</b>
360850067	Susan Wagner HS	76
361030002	Babylon	76
361030004	Riverhead	76

**7. Consideration of Exceptional Events Would Bring All New York Monitors Into Attainment With the 2008 Ozone NAAQS**

Significantly, all three of the New York monitors that have preliminary design values above the 2008 ozone NAAQS, would actually be below the 2008 standard if the exceptional events that occurred in 2016 related to Canadian wildfires are considered. For whatever reason, New York has not yet filed a request to have this data excluded, even though New Jersey,

Connecticut, Maryland, Massachusetts, Pennsylvania and several other states have done so. As a result, and as is shown in the following table, the three New York monitors that would otherwise exceed the 2008 ozone NAAQS would be brought into attainment of that standard if the monitored ozone at any of these monitors that had been influenced by the 2016 Canadian wildfires were excluded from the calculation of the 2017 design values in accordance with applicable EPA regulatory programs and guidance:

		<b>With wildfire</b>	<b>Without wildfire</b>
360850067	Susan Wagner HS	76	74
361030002	Babylon	76	74
361030004	Riverhead	76	74

In the absence of New York requesting exclusion of these data, we ask that EPA consider the exclusion of these Exceptional Event periods as it evaluates the merit of this petition.

**8. The Petition Fails To Apply EPA’s Modeling Analysis Of Transport In 2023**

The petition complains that the CSAPR Update Rule was designed by EPA to be a “partial remedy” to address interstate transport in 2017 (p. 6 of 17). The petition, however, dismisses EPA demonstration in the October 2017 memorandum of Steve Page that the CSAPR Update becomes a full remedy when it is extended to 2023 – the attainment year for the 2015 ozone NAAQS and the 2008 ozone NAAQS compliance date.

The petition offers the following three inappropriate reasons why it did not consider EPA’s modeling analysis released in October 2017.

- a. The initial stated reason by New York for ignoring EPA’s most recent Good Neighbor modeling data is New York’s belief that enforceable limits are needed before the modeling could be considered. This concern misses the point that EPA’s projection of emissions in 2023 is based upon on-the-book regulations and control requirements that are self-implementing and do not require anything further by way of enforceable limits. EPA’s modeling relied only on control programs currently in place and in effect. As such, nothing more is needed to evaluate these control programs in 2023 for their implications to upwind states.
- b. New York also states that a concern about the model’s ability to address monitors located at a land/water interface provide an additional basis for not considering the EPA data. Significantly, EPA’s conclusion, as stated in its October 2017 memorandum, is that no 2008 ozone NAAQS non-attainment or maintenance areas exist anywhere in New York or anywhere else the east in 2023. That fact that EPA’s modeling was performed on a 12 km modeling grid raises a question about whether that modeling is refined enough to address the land/water interface of concern to New York. To address its own concerns about the model’s ability to handle land/water interface issues, MOG has just completed running EPA’s model at a finer 4 km grid. The results of the exercise is to confirm that 4 km modeling demonstrates that the

predicted ozone concentration at all 12 km grid nonattainment monitors in the east drops significantly and that all such monitors in New York move into attainment with the 2008 ozone NAAQS as well as the more stringent 2015 ozone NAAQS. These data is presented in the following table.

Monitor	State	County	DVb (2011)	12km Modeling		4km Modeling	
				DVf ave (2023)	Dvf max (2023)	DVf ave (2023)	Dvf max (2023)
90019003	Connecticut	Fairfield	83.7	72.7	75.6	69.9	72.7
361030002	New York	Suffolk	83.3	72.5	74.0	70.7	72.1
360850067	New York	Richmond	81.3	71.9	73.4	69.6	71.0
240251001	Maryland	Harford	90.0	71.4	73.8	71.1	73.5
90013007	Connecticut	Fairfield	84.3	71.2	75.2	69.7	73.6
90099002	Connecticut	New Haven	85.7	71.2	73.9	70.3	73.0

- c. New York also refused to consider the EPA Good Neighbor modeling because it focused on the attainment year of 2023, whereas New York asserts that relief under a 126 petition must be implemented in no more than 3 years. Given that 2023 is the likely attainment year for the 2015 ozone NAAQS and given the time that would be needed for EPA to approve the New York petition and to apply a three year compliance schedule to any such determination, EPA’s selection of 2023 as the year to be the focus of its modeling is very reasonable.

**9. The Petition Fails To Consider The Impact of International Transport**

Based on the modeling efforts of MOG, it is clear that “but for” international transport of ozone and ozone precursor emissions every monitor in New York would be in attainment with both the 2008 and 2015 ozone NAAQS. Credit for international emissions is specifically recognized in Section 179B of the Clean Air Act. Recognition of international emissions is also critical to answering the Court’s concerns about over-control when implementing the provisions of CAA section 110(a)(2)(D)(i)(I). As was stated by the DC Circuit – this section “gives EPA no authority to force an upwind state to share the burden of reducing other upwind states’ emissions.” *North Carolina v. EPA*, 531 F 2d at 921. If the Court applies this rule to emissions from other states, it is only logical that it will do so with respect to international emissions. The following data, taken from EPA modeling, shows how the two components of international emissions – boundary and Canada/Mexico - impact on the New York monitors in question.

Monitor ID	Local Site Name	2009-2013 Average Design Value	2017 Average MDA8 Ozone Design Value (ppb)				
			2017 Average Base Case	Canada & Mexico Contribution	2017 Base Case w/o Can/Mex	Initial & Boundary Condition Contribution	2017 Base Case w/o BC and Can/Mex
360850067	Susan Wagner HS	81.3	75.8	1.40	74.40	17.14	57.26
361030002	Babylon	83.3	76.8	1.25	75.55	15.67	59.88
361030004	Riverhead	78.0	70.6	0.99	69.61	12.69	56.92

Monitor ID	Local Site Name	2009-2013 Average Design Value	2023 Average MDA8 Ozone Design Value (ppb)				
			2023 Average Base Case	Canada & Mexico Contribution	2023 Base Case w/o Can/Mex	Initial & Boundary Condition Contribution	2023 Base Case w/o BC and Can/Mex
360850067	Susan Wagner HS	81.3	71.2	1.82	69.38	16.83	52.55
361030002	Babylon	83.3	71.3	1.78	69.52	17.17	52.35
361030004	Riverhead	78.0	64.9	0.97	63.93	12.56	51.37

## 10. Mobile Sources – Not Point Sources - Have The Largest Impact on New York Monitors

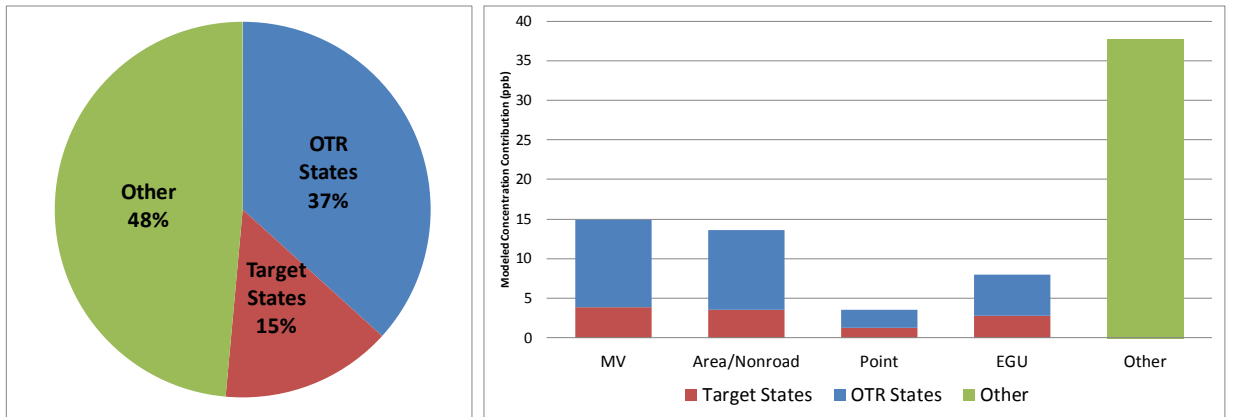
The petition erroneously concludes that major stationary sources in other states are causing the ozone air quality concerns in New York. Specifically, the petition offers the following statement on page 5 of 17 of the petition:

“The high concentrations of ozone that are transported to New York State are largely the result of emission from major stationary sources of NO<sub>x</sub> located out-of-state.”

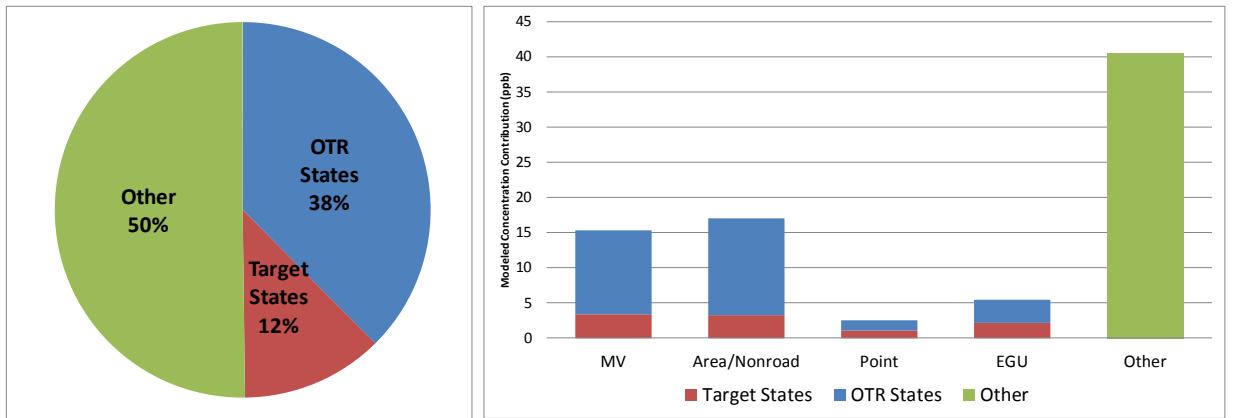
Contrary to this statement, and as demonstrated in the ozone source apportionment modeling of EPA in support of the 2016 CSAPR Update Rule<sup>4</sup>, it is clear that ozone impacts on New York’s problem monitors are overwhelmingly from motor vehicles and area and non-road sources.

<sup>4</sup> [http://www.midwestozonegroup.com/files/Relative\\_Contribution\\_of\\_Upwind\\_Sources\\_on\\_Key\\_Monitors.pdf](http://www.midwestozonegroup.com/files/Relative_Contribution_of_Upwind_Sources_on_Key_Monitors.pdf)

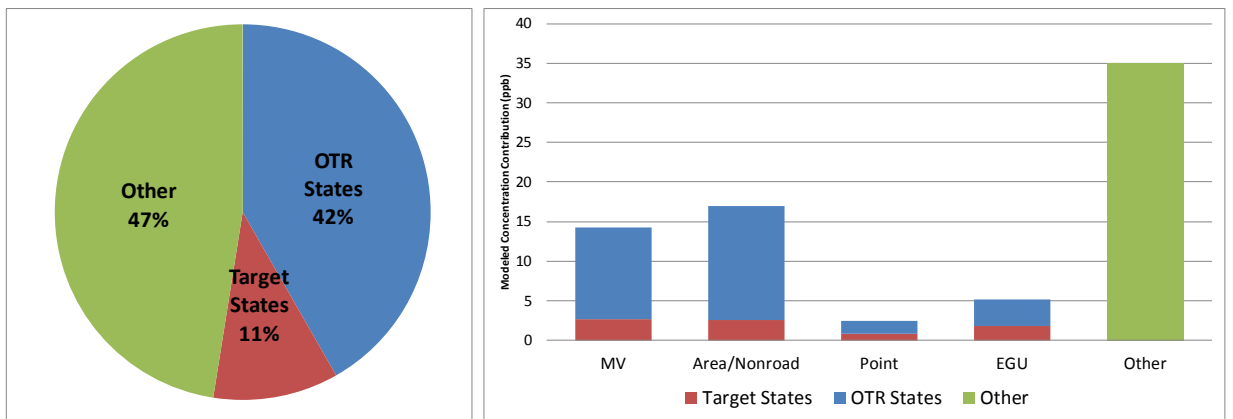
360850067 - Susan Wagner HS - 2017 OSAT Results



361030002 - Babylon - 2017 OSAT Results



361030004 - Riverhead - 2017 OSAT Results



**11. New York’s Reliance On the Dunkirk Monitor Is Irrelevant Since That Site Attains Even the 2015 Ozone NAAQS**

The Dunkirk monitor (360130006) is cited in the petition (p. 12 of 17) as a monitor that has “the potential to exceed the NAAQS – particularly, the updated 2015 standards – due to



transported ozone pollution.” Even putting aside the question of the origination of that monitor’s ozone, it is clear that the petition is incorrect in this conclusion inasmuch as this monitor has consistently had design values below the 2015 ozone NAAQS and would experience even lower levels when measurements related to the 2016 Canadian wildfire exceptional events are excluded – all as shown in the following table:

<b>AQS Site ID</b>	<b>State</b>	<b>County</b>	<b>Local Site Name</b>	
360130006	New York	Chautauqua	Dunkirk	
<b>4th High Daily Max Design Value (ppb)</b>				
<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2016 (Excl Fire Dates)</b>	<b>2017*</b>
66	71	69	66	66
<b>3-yr MDA8 Design Value (ppb)</b>				
<b>2014-2016 (Excl 2016 Fire Dates)</b>	<b>2014-2016 (Excl 2016 Fire Dates)</b>	<b>2015-2017* Fire Dates)*</b>	<b>2015-2017 (Excl 2016 Fire Dates)*</b>	
68	67	68	67	
* Preliminary based on 21 March 2018 download from <a href="https://www.epa.gov/outdoor-air-quality-data/monitor-values-report">https://www.epa.gov/outdoor-air-quality-data/monitor-values-report</a>				

**12. New York Does Not Make Its Underlying Modeling Data Available For Review**

The petition states (p.10 of 17) that it relied upon MARAMA emission inventory data to identify facilities emitting 400 tons per year or more of NOx; however, the petition does not make that data available for analysis. This omission is critically important since New York used the MARAMA data to assess the impact of one or more source categories located in a group of states that were selected from an EPA’s modeling platform. This mixing of modeling platforms creates complex scientific questions that need to be assessed and can only be assessed with access to all available data generated by New York in support of its position.

**13. New York Relies On Outdated Emissions Data For The Targeted Point Sources**

The New York petition states (p.10 of 17) that it relied upon 2014 National Emissions Inventory (NEI) data to identify 400 tons sources, which it admits overstates even its 2017 estimate of emissions, much less the emissions that could be expected in the attainment year applicable to both the 2008 and 2015 ozone NAAQS. To the extent that New York relies even on EPA’s modeling performed in 2016 related to the CSAPR Update Rule, it is clear that EGU emission estimates for 2017 are larger in comparison with actual EGU emissions reported to CAMD.

As can be seen in the following table, the EGU emissions used to perform the CSAPR Update Rule modeling of 2017 and relied upon by New York to select the 10 “significantly contributing” states are significantly greater than the actual emissions that occurred in 2017:

State	2017 Ozone Season NOx Tons			CEM Delta from CSAPR (%)
	EGU (CSAPR)	EGU (CEM)	Delta	
IL	15,706	14,531	1,175	-7%
IN	43,842	22,419	21,423	-49%
KY	38,968	20,053	18,915	-49%
MD	4,348	2,939	1,409	-32%
MI	32,167	16,958	15,209	-47%
NJ	4,001	1,684	2,317	-58%
OH	29,599	21,005	8,595	-29%
PA	50,870	14,435	36,435	-72%
VA/DC	10,438	8,069	2,369	-23%
WV	25,582	18,463	7,119	-28%
<b>Sec 126 Subtotal</b>	<b>255,522</b>	<b>140,556</b>	<b>114,966</b>	<b>-45%</b>
CT	493	430	63	-13%
DE	362	459	(97)	27%
NY	7,396	5,614	1,782	-24%
NorthEast	2,730	1,611	1,119	-41%
WI	8,690	8,103	586	-7%
NC	21,929	16,474	5,456	-25%
TN	6,383	10,135	(3,752)	59%
SOUTH	80,999	54,262	26,737	-33%
AR	11,888	12,811	(923)	8%
MO	20,572	15,400	5,172	-25%
OK	24,329	11,043	13,286	-55%
TX	66,585	54,375	12,210	-18%
WEST	180,994	148,488	32,506	-18%
<b>CONUS Total</b>	<b>688,872</b>	<b>479,761</b>	<b>209,111</b>	<b>-30%</b>

Reliance on such outdated data ignores the effect of significant and on-going emission reduction programs that have and are further reducing contributions to ozone concentrations. Reliance on this outdated information by New York also dramatically overstates the impact of these sources on its monitors.

**14. New York Admits That Some Targeted Sources Are Already Achieving Their Requested Control Levels**

The petition concedes (p. 17 of 17) that some sources already achieve the emission rate it requests, a clear admission that these sources are not the cause of the problem being complained of by New York.

**15. The Zero-out Modeling Performed By New York Is Of Questionable Scientific Validity**

In order to assess the impact of the 400 ton sources, the petition states that New York “zeroed out” all such sources. Such an approach is completely inappropriate since the petition does not seek to eliminate the 400 ton sources but rather to impose an additional level of control on them. Beyond the obvious overstatement of the emission change involved, the scenario modeled by New York is so radical as to alter the ability of the computer model to accurately predict ozone concentrations.

**16. New York Fails To Address the Facts Related To The NAAQS Attainment Date**

Even though the attainment data for the 2015 ozone NAAQS is 2023 or later and even though EPA has selected 2023 as the design date for Good Neighbor plan controls related to the 2008 ozone NAAQS, the New York petition offers no analysis for any time-period after 2017. The petition therefore, fails to address the substantive technical issue involved and cannot be used to demonstrate the need for additional controls on sources in the target states.

**17. New York Did Not Apply the EPA Approved Modeling Technique**

New York concedes (p.11 of 17) that it did not apply EPA approved modeling techniques to its analysis. Significantly one such “adjustment” to EPA’s methodology that was made by New York was to base its modeling on days where the model predicted concentrations as low as 60 ppb – far below even the 2015 (70 ppb) ozone NAAQS. This adjustment brings into the analysis, emission and meteorological conditions that are unrelated to the issues to be addressed in a 126 petition.

New York also notes that one of the “adjustments” to EPA’s approved modeling was to examine only a portion of the ozone season rather than the entire season (p. 11 of 17). This was done because of “resource constraints”; however, in performing its analysis on this limited basis, New York has failed to determine if other factors could be influencing its monitors during the remainder of the ozone season.

**Conclusion**

For these reasons and others that will be developed as its investigation and analysis of the New York petition continues, the Midwest Ozone Group urges EPA to deny the New York 126 petition.