

February 1, 2016

Gina McCarthy, Administrator  
Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Re: EPA-HQ-OAR-2015-0500; FRL – 9935-25-OAR  
Cross State Air Pollution Rule Update for the 2008 NAAQS.

Dear Administrator McCarthy,

The attached comments of Anthracite Region Independent Power Producers Association’s (“ARIPPA”) are hereby being filed electronically in EPA Docket No. EPA-HQ-OAR-2015-0500.

We appreciate this opportunity to provide comments to the proposed Cross State Air Pollution Rule Update for the 2008 NAAQS.

Very truly yours,

George Ellis, Executive Director  
ARIPPA  
2015 Chestnut St.  
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717-763-7635



## **COMMENTS OF THE ANTHRACITE REGION INDEPENDENT POWER PRODUCERS ASSOCIATION ON EPA'S PROPOSED CSAPR UPDATE<sup>1</sup>**

The Anthracite Region Independent Power Producers Association's (ARIPPA) respectfully submits the following comments and suggestions regarding the development of EPA's Proposed Cross-State Air Pollution Rule for the 2008 Ozone NAAQS (80 Federal Register 75706, December 3, 2015).<sup>2</sup>

ARIPPA is a consortium of companies whose members operate small, independent coal refuse burning steam-electric facilities, principally in Pennsylvania. These plants utilize fluidized-bed combustion boilers in which finely crushed limestone is burned along with processed coal refuse (residue from historic anthracite and bituminous coal mining operations) to generate electricity. While part of this process is the generation of electricity, the other parts of coal-refuse-to-energy process are the large-scale environmental remediation, safety and health activities achieved across the coal regions and the downstream of the Commonwealth.

The following is a portfolio of the PA coal refuse-fired industry:

- Include 1500 MW of electrical generation capacity
- Remove and use as fuel 11 million tons of coal refuse annually
- Have used over 205 million tons of coal refuse for fuel, to date
- Have remediated and reclaimed thousands of acres of PA mining affected lands
- Have eliminated acid mine drainage and improved hundreds of miles of PA streams
- Provide over 1200 direct jobs with payrolls in excess of \$84 million per year
- Provide over 4000 indirect jobs in project management, engineering, operations, transportation, logistics and skilled trades
- Provide property tax revenues to support local schools and communities, and;
- Provide over \$10 million per year of business per facility into their local economy – collectively, over \$150 million per year into PA's economy

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<sup>1</sup> Cross – State Air Pollution Rule for the 2008 Ozone NAAQS (80 Federal Register 75706, December 3, 2015)

<sup>2</sup> ARIPPA appreciates the assistance of the Midwest Ozone Group in making its assessment of the proposal available to ARIPPA. We support the comments of MOG on this proposal.

Removal of coal refuse piles (remnants of a past mining era) and attendant reclamation activities that are part and parcel of the coal-refuse-to-electricity generating process result in the restoration of ecologically damaged sites and polluted water bodies caused by pre-act mining. (i.e. before enactment of the federal Surface Mine Control and Reclamation Act.)

To date, our industry has removed and used as fuel over 205 million tons of coal refuse, remediated and reclaimed thousands of abandoned mine land acres through the utilization of the beneficial use ash generated by FCBs and improved hundreds of miles of streams by eliminating a major source of acid mine drainage. ARIPPA members perform their work at no cost to taxpayers and without using any money from the federal Abandoned Mine Fund, thus increasing the AML acreage that could be reclaimed with this federal revenue source.

Because of limited dollars for clean-up and the magnitude of PA's past mining legacy, unless ARIPPA members continue to operate their coal refuse generating facilities, coal refuse piles already blighting the coal fields' landscape will likely not be addressed thus continuing to produce acidic discharges and uncontrolled air pollution caused by spontaneous combustion initiated coal refuse fires. Our industry has been the major source for removing these specific environmental, safety and health hazards.

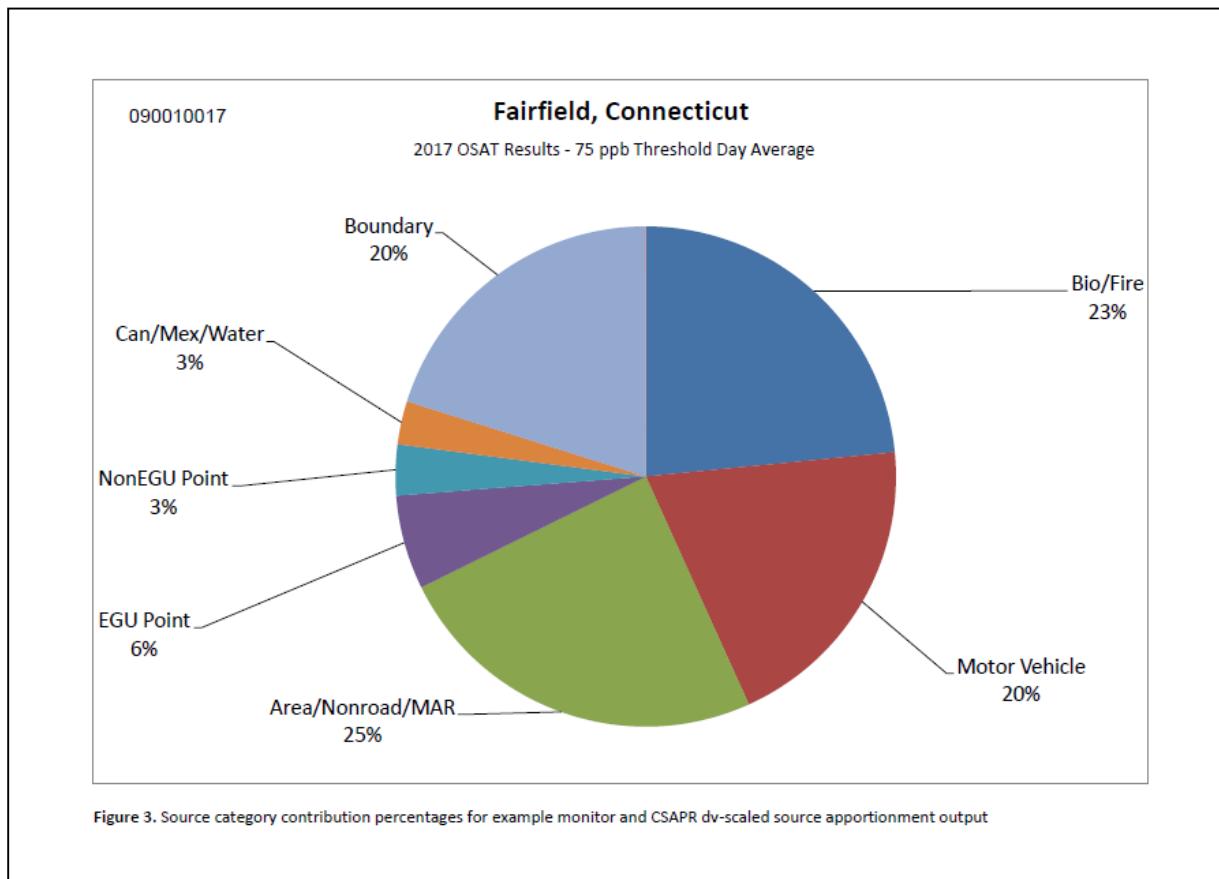
Finally, this rule is totally inconsistent with the objectives of the Policy Memorandum signed by President Obama (Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, Pages 68473-68477, Vol. 80, No. 215, Nov. 6, 2015 Federal Register) that seeks to encourage private investment in land and resource restoration projects.

The memorandum, applicable to EPA, would among other things require the agency to ensure that harmful effects to land and water caused by past activities are effectively addressed and the land and water resources properly restored. In implementing this requirement, the memo instructs EPA to promote private sector involvement in these remediation efforts. As explained above, the coal-refuse-to-electricity industry is unique in that its activities result in measurable land and water quality improvements. These are environmental improvements that in all likelihood would not otherwise occur but for ARIPPA members' actions. Indeed, even EPA has long recognized and supported the environmental benefits of the combustion of coal refuse. During the regulatory development of the MATS Rule, EPA stated that, "... units that burn coal refuse provide multimedia environmental benefits by combining the production of energy with the removal of coal piles and by reclaiming land for productive use. Consequently, because of the unique environmental benefits that coal refuse-fired EGUs provide, these units warrant special consideration..." 76 Fed. Reg. 25,066.

If this regulation takes effect as written, it would put at risk or potentially shutter about 80% of the generation capacity of PA's coal refuse-based electric fleet. It would also contradict the goal of the President's memorandum by virtually ending this industry's remediation work. As a result, millions of tons of coal refuse will remain on the ground and continue to contaminate our land and pollute our streams. Therefore, before adopting this rule, EPA is obligated to reconcile the inherent conflict between the goals of the policy memo with the full consequences of this rule.

## EPA'S PROPOSAL DOES NOT ADDRESS ALL SOURCES THAT IMPACT AIR QUALITY GOALS AND INSTEAD FOCUSES UPON THE SMALLEST OF THE CONTRIBUTORS TO DOWNWIND AIR QUALITY DELIVERING A WHOLLY INADEQUATE PROPOSAL

Set forth below is a graphic which depicts the extent to which different source categories are in fact impacting on one of the most significant nonattainment monitors remaining in the East - Fairfield, Connecticut. This graphic is taken from a report prepared for the Midwest Ozone Group by Alpine Geophysics.<sup>3</sup>



Significantly, the sources that have the most impact on the Fairfield Connecticut Monitor 090010017 (one of the leading nonattainment monitors identified by EPA) are as follows:

Biogenics and fire	23%
International (Boundary and Can/Mex)	23%
Nonroad mobile etc.	25%
Motor Vehicle	20%
EGU	6%
NonEGU	3%

3 <http://www.midwest ozone group.com/files/IndependentSector-SpecificSourceApportionmentModelingofthe2017CrossStateAirPollutionRuleModelingPlatform.pdf>

Even more significant is the fact that Table 2 of this analysis set forth below points out that even for an upwind state like Pennsylvania, the largest sources impacting on the Fairfield Connecticut monitor are nonroad mobile, biogenics/fire and motor vehicles in that order – and yet EPA’s proposal selects EGU sources (the fourth highest category) to be the only source category to receive any emission reductions under its proposal. We object.

**Table 2. Example monitor and CSAPR dv-scaled source apportionment output.**

Monitor 099910017 Fairfield, Connecticut

Region	2017 OSAT Results (Modeled ppb) – 75 ppb Threshold										% of Total
	Bio/Fire	Motor Vehicle	Area/NR	JMAR	EGU Point	NonEGU Point	Can/Mex Water	Boundary	In/Bal	Total	
BC	0.00	0.00	0.00	0.00	0.00	0.00	15.24	0.00	15.24	20%	
IG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0%	
CT	4.55	2.08	3.31	0.02	0.03	0.00	0.00	0.00	9.97	13%	
DE	0.12	0.13	0.15	0.05	0.05	0.00	0.00	0.00	0.51	1%	
MD	0.65	0.54	0.72	0.19	0.17	0.00	0.00	0.00	2.27	3%	
NJ	2.28	4.64	4.60	0.43	0.32	0.02	0.00	0.00	12.28	16%	
NY	3.21	2.42	3.62	0.33	0.18	0.02	0.00	0.00	9.77	13%	
PA	1.97	1.75	2.08	1.62	0.54	0.00	0.00	0.00	7.98	10%	
VA/DC	0.83	0.68	0.65	0.17	0.15	0.00	0.00	0.00	2.47	3%	
NorthEast	0.04	0.04	0.08	0.00	0.01	0.00	0.00	0.00	0.14	0%	
IL	0.25	0.17	0.28	0.19	0.11	0.00	0.00	0.00	0.99	1%	
IN	0.19	0.23	0.21	0.25	0.10	0.00	0.00	0.00	0.98	1%	
MI	0.20	0.34	0.23	0.20	0.08	0.04	0.00	0.00	0.99	1%	
OH	0.39	0.68	0.47	0.27	0.17	0.00	0.00	0.00	1.95	3%	
WI	0.11	0.11	0.10	0.03	0.04	0.00	0.00	0.00	0.37	0%	
WV	0.17	0.07	0.17	0.12	0.07	0.00	0.00	0.00	0.60	1%	
KY	0.15	0.13	0.14	0.11	0.04	0.00	0.00	0.00	0.58	1%	
NC	0.19	0.12	0.14	0.10	0.04	0.00	0.00	0.00	0.60	1%	
TN	0.08	0.10	0.08	0.02	0.02	0.00	0.00	0.00	0.27	0%	
SOUTH	0.24	0.24	0.18	0.07	0.10	0.00	0.00	0.00	0.83	1%	
AR	0.10	0.04	0.05	0.03	0.02	0.00	0.00	0.00	0.24	0%	
MO	0.18	0.11	0.11	0.04	0.01	0.00	0.00	0.00	0.42	1%	
OK	0.13	0.08	0.11	0.05	0.08	0.00	0.00	0.00	0.42	1%	
TX	0.19	0.12	0.22	0.06	0.08	0.01	0.00	0.00	0.67	1%	
WEST	1.09	0.38	0.62	0.24	0.15	0.01	0.00	0.00	2.47	3%	
Can/MexWater	0.54	0.00	0.25	0.00	0.00	2.02	0.00	0.00	2.81	4%	
Grand Total	17.78	15.00	18.84	4.89	2.49	2.12	15.24	0.03	75.88	100%	

**THE CLEAN AIR ACT REQUIRES THE PRELIMINARY ASSESSMENT AND IMPLEMENTATION OF THE RESPONSIBILITY OF LOCAL SOURCES TO CONTROL THEIR EMISSIONS.**

EPA is required under the CAA to first consider the effects of local emissions in a nonattainment area and nearby areas in state(s) closest to the nonattainment area in question before seeking controls 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.”

EPA itself acknowledges the need for local controls. 80 Fed. Reg. 75711, 75712. Specifically EPA states: “Downwind states also have control responsibilities because, among other things, the Act requires each state to adopt enforceable plans to attain and maintain air quality standards.” 80 Fed. Reg. at 75709.

Illustrative of this exercise is the Connecticut circumstance. (Note: as will be pointed out in these comments the only remaining “problem monitors” in the East are located in Connecticut.) In its report entitled “Reasonably Available Control Technology Analysis under the 2008 8-Hour Ozone National Ambient Air Quality Standard” dated July 17, 2014<sup>4</sup> the Connecticut Department of Energy and Environmental Protection Bureau of Air Management evaluated RACT controls in their state and found them to be deficient. The principal conclusion reached by Connecticut at page 28 of that report is that additional controls are appropriate:

DEEP commits to perform further evaluation of Connecticut’s municipal waste combustor and fuel-burning source NOx requirements and to seek any regulatory revisions necessary to revise the control requirements to a RACT level for the 2008 ozone NAAQS. The main basis for the determination that these source categories are no longer subject to RACT is that other states now have in place emissions limitations that are more stringent than those required in Connecticut, so the more stringent emission limits, and the controls necessary to meet those emission limits, are technically and economically feasible.

With respect to Municipal Waste Combustors the Connecticut report offered more controls are appropriate (pages 28 and 29):

. . . 15 [municipal waste combustor] units are one of the most significant sources of NOx emissions in Connecticut. In 2011, the municipal waste combustor NOx emissions exceeded those of Connecticut’s electric generating sector to become the largest stationary source category of NOx emissions in Connecticut. . . Based on these observations, DEEP believes that it may be both technically and economically reasonable to reduce NOx emissions from the Connecticut municipal waste combustor facilities. . . DEEP commits to investigate the cost and emissions reductions available from the municipal waste combustors . . . DEEP would seek to move such an amendment through the regulatory adoption process to allow for adoption by December 31, 2016.

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<sup>4</sup> [http://www.ct.gov/deep/lib/deep/air/ozone/ozoneplanningefforts/ract\\_2008\\_naaqs/2014-07-17 - ct\\_final\\_ract\\_sip\\_revision.pdf](http://www.ct.gov/deep/lib/deep/air/ozone/ozoneplanningefforts/ract_2008_naaqs/2014-07-17 - ct_final_ract_sip_revision.pdf)

With respect to Fuel-Burning Sources (Boilers, Turbines, Engines) the Connecticut report observed (pages 30, 32) as follows:

Revisions to the NOx emissions control requirements for boilers, turbines and engines in RCSA section 22a-174-22 are necessary to establish a RACT level of control under the 2008 ozone NAAQS . . . Based on the comparison of Connecticut's NOx emissions limitations with those in other states . . . , reductions in the emissions limitations of RCSA section 22a-174-22 are necessary, likely in conjunction with an elimination or adjustment of the NOx credit trading program, so that Connecticut's boilers, turbines and engines are controlled to a RACT level with respect to the 2008 ozone NAAQS.”

The Connecticut observations illustrate their actions relative to the statutory and regulatory mandate for states to adopt updated RACT controls in advance of the 2017 ozone season. The reductions related to these RACT-based controls will result in direct impact on air quality and accordingly will inform the Court mandated assessment of whether emission reductions imposed by a transport rule are more stringent than would be necessary to allow a downwind states to attain the 2008 ozone NAAQS.

The same DEEP report also reaches the following significant conclusion about HEDD emissions:

To reach attainment in the NY-NJ-CT nonattainment area, HEDD emissions need to be addressed in all three state portions of the area . . . to address Connecticut's ozone nonattainment, and Connecticut's good neighbor obligations to downwind states, peak day emissions must be reduced. Thus, “beyond RACT” measures may be warranted for HEDD units on HEDD to meet the state obligation of attainment of the ozone NAAQS as expeditiously as possible.

pp. 25, 27.

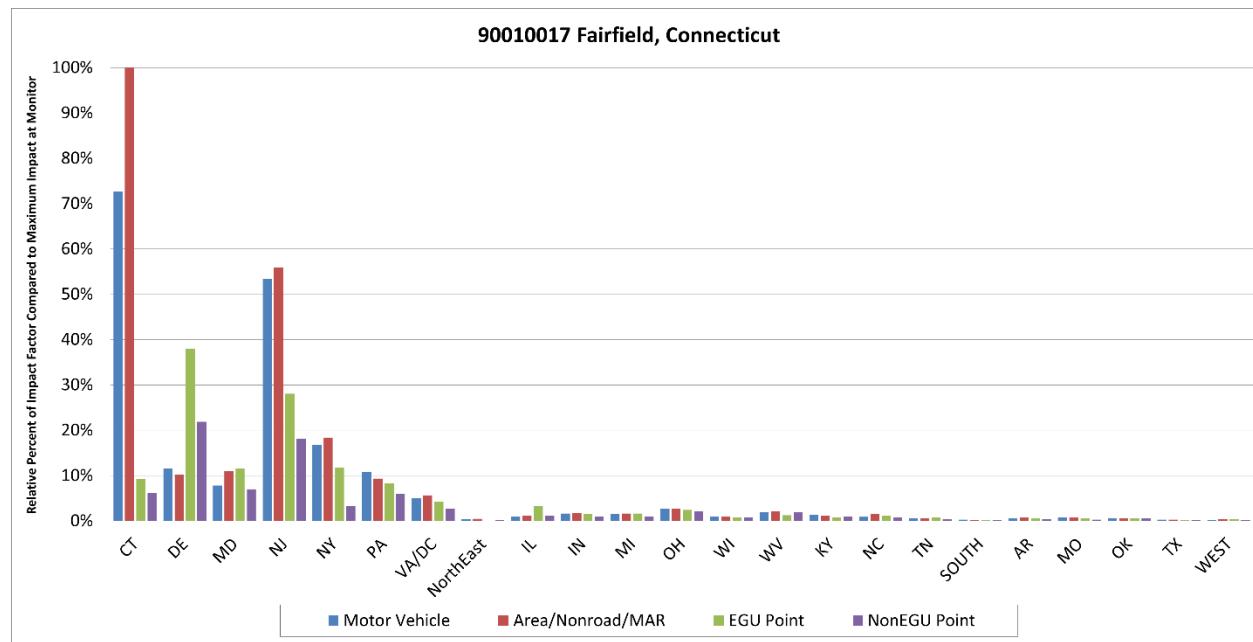
Local transport as specifically noted by Connecticut must be addressed in Connecticut and its near neighbors New Jersey and New York if it is to achieve attainment with the ozone NAAQS and comply with requirements of the Clean Air Act. EPA is obligated to recognize that it is the primary duty of the downwind states to address this concern as a condition precedent to the development of a transport rule related to these receptors.

Also noteworthy is the January 26, 2016 U.S. Supreme Court ruling supporting the FERC demand response strategy for reducing energy use. It is highly likely that this program will impact air quality as it exacerbates the operation of unregulated distributed generation by diesel generators in NYC or other urban areas which will result in continued non-attainment.

In its report entitled “Relative Impact of State and Source Category NOx Emissions on Downwind Monitors Identified Using the 2017 Cross State Air Pollution Rule Modeling Platform” (which can be found at:

<http://www.midwest ozone group.com/files/RelativeImpactofStateandSourceCategoryNOxEmissionsonDownwindMonitorsIdentifiedUsingthe2017CrossStateAirPollutionRuleModelingPlatform.pdf>, Alpine Geophysics has examined which state's emission have the greatest impact on downwind ozone concentrations and has determined, at each monitor, from where and what source category, on a ppb per ton basis. This provides a basis for determining where to turn for the greatest relative contribution to ozone improvement. Resulting monitor-level, relative impact factors for the twenty-one eastern state proposed rule identified nonattainment and maintenance monitors are presented in the tables set forth in that report.

The following is the graph from that report related to one of the Fairfield Connecticut monitors:



Clearly the greatest improvement in ozone concentrations occur with reductions in emissions from sources located in Connecticut itself and from area and mobile sources throughout the Northeast. It also turns out that the three states with the next greatest potential to improve air quality on a per ton reduced basis in Connecticut are:

New Jersey (over 50% of Connecticut's potential);  
 Delaware (nearly 40% of Connecticut's potential); and  
 New York (nearly 20% of Connecticut's potential).

This analysis further supports the conclusion that the control of local sources and local transport are key components to addressing residual nonattainment concerns in the region.

## **INTERNATIONAL EMISSIONS ARE A UNIQUE INFLUENCE ON AIR QUALITY THAT STATES CANNOT CONTROL AND CAA POLICY IS TO RECOGNIZE THAT FACT**

It is imperative that the modeling and associated data and methods prescribed by EPA for the purpose of developing any rulemaking proposal to address interstate ozone transport for the 2008 ozone NAAQS, take into consideration the impact of international transport on ozone air quality in the United States.

Clean Air Act §179B subsection (a) reads as follows addressing the role of international emissions in the development of implementation plans, including we believe the federal implementation being proposed by EPA and any downwind nonattainment implementation plan or for that matter a “good neighbor” state implementation plan:

Notwithstanding any other provision of law, an implementation plan or plan revision required under this chapter shall be approved by the Administrator if –

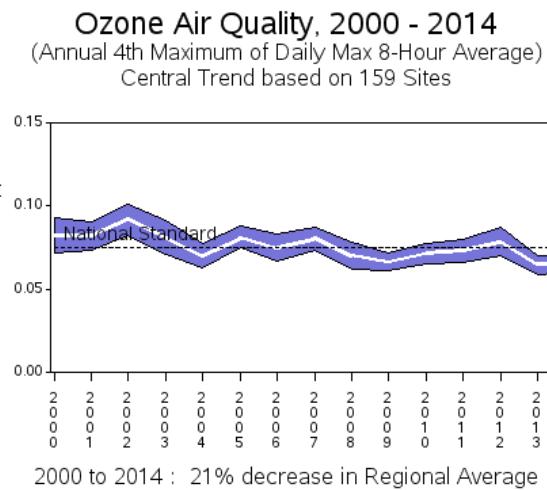
- (1) such plan or revision meets all the requirements applicable to it under the chapter other than a requirement that such plan or revision demonstrate attainment and maintenance of the relevant national ambient air quality standards by the attainment date specified under the applicable provision of 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. (Emphasis added)."

In addition the U.S. Supreme Court noted it is essential that states be required to eliminate “only those amounts” of pollutants that contribute to the nonattainment of NAAQS in downwind States...” *EPA v. EME Homer City Generation*, 134 S.Ct. 1584, 1606 (April 29, 2014). “EPA cannot require a State to reduce its output of pollution by more than is necessary to achieve attainment in every downwind State. . . “ *Id.* at 1608.

Failure to account for these international emissions not only ignores the provisions of Section 179B of the Act but also the mandate against over-control of upwind emission sources set by the Supreme Court.

## EPA'S PROPOSED RULE ARTIFICIALLY IGNORES THE SIGNIFICANT REDUCTION IN EMISSIONS AND IMPROVEMENTS IN AIR QUALITY IN THE EASTERN U.S. IN RECENT YEARS

Recent 8-hr ozone trends show air quality improvement as a result of on-the-books controls and regulation. In fact, most current EPA data for 2014 and draft data for 2015<sup>5</sup> shows widespread attainment of the 2008 ozone NAAQS in the eastern United States.<sup>6</sup> The graph below demonstrates improved air quality for ozone over that past 14 years showing a 21% decrease in regional average.



The two remaining locations of nonattainment monitors are located in only two distinct and limited geographic areas of the eastern U.S.: one monitor borders Lake Michigan (WI and MI) and the other monitor is located between Interstate 95 and the Long Island Sound (CT).



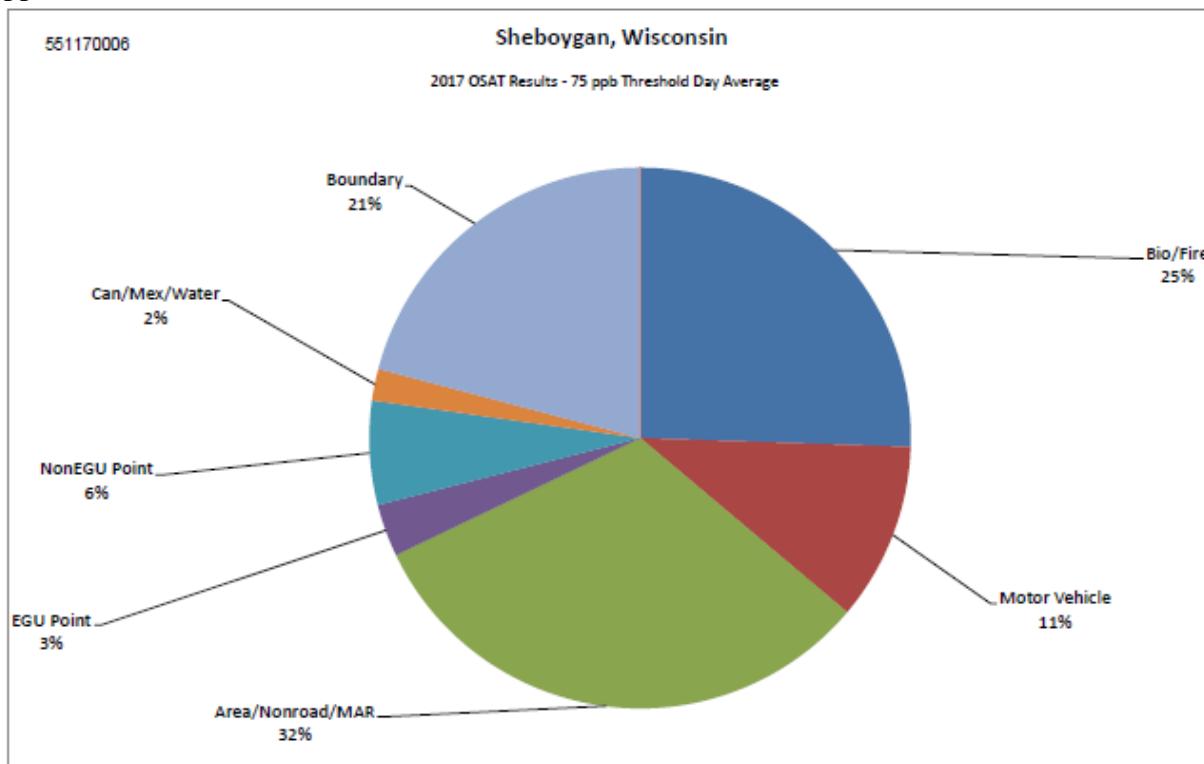
These monitors in Wisconsin and Connecticut are largely impacted by numerous local sources such as motor vehicles, area/non-road vehicles, and bio/fire. A representation of source impacts

5 <http://www3.epa.gov/airquality/airdata/index.html>

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[http://www.midwest ozone group.com/files/Current\\_Ozone\\_Design\\_Values\\_and\\_Widespread\\_Attainment\\_of\\_the\\_2008\\_8-hr\\_Ozone\\_NAAQS2.pdf](http://www.midwest ozone group.com/files/Current_Ozone_Design_Values_and_Widespread_Attainment_of_the_2008_8-hr_Ozone_NAAQS2.pdf)

for Connecticut was presented earlier in these comments. Set forth below is a similar source apportionment chart for the Wisconsin monitor.



For these nonattainment monitors, the historical and projected design values demonstrate ozone improvement. The table set forth below demonstrates the numerical improvements in monitored ozone levels for these monitors.

(ppb)	Annual 4th Highest Maximum (ppb)					3-yr Average (ppb)			2017 CSAPR DV			
	State	County	Site ID	2011	2012	2013	2014	2015	2011-13	2012-14	2013-15	Average
Connecticut Fairfield	90013007	87		90	90	74	86	89	84	83	77.1	81.4
Connecticut Fairfield	90019003	87		89	86	81	87	87	85	84	78.0	81.1
Connecticut N. Haven	90099002	92		90	85	69	81	89	81	78	77.2	80.2
Wisconsin Sheboygan	551170006			84	93	78	72	81	85	81	77	77.0
		79.4										

Equally significant is the fact that these air quality improvements will continue to occur as the result of control programs already on-the-books. Within the 23 state eastern U.S. domain impacted by the proposed CSAPR, NOx emissions decrease by approximately 2,450,000 tons (27%) from 2011 to 2017.<sup>7</sup> Annual NOx emissions from electric generating utilities (EGUs) decrease by 373,000 tons, or 26% from 2011 levels and have already shown significant reduction below projected progress relied upon by EPA through its limited assessment of 2014 CAMD CEM data.<sup>8</sup>

<sup>7</sup> [http://midwest ozone group.com/files/CSAPR\\_Documented\\_Emission\\_Reductions\\_and\\_Control\\_Scenarios.pdf](http://midwest ozone group.com/files/CSAPR_Documented_Emission_Reductions_and_Control_Scenarios.pdf)

<sup>8</sup> Id.

Emission reductions in 2017 will also be dramatically lower than EPA evaluated because EPA's newest emission projection method now shows approximately 93,000 tons fewer NOx emissions than were previously anticipated. This erroneously inflated EGU emissions presumption was used in the air quality modeling and significant contribution analysis of this proposed rule. All the more important that this error is more than the total of the NOx reductions that EPA seeks to achieve in its proposal.

In addition, EPA awkwardly failed to account for several on-the-books emission reductions programs that are of sufficient magnitude to have a material effect on the outcome of the analysis underlying the proposal. EPA's cavalier dismissal of public and private investments in changes that will impact air quality is unreasonable and irresponsible as a matter of law and policy. Only through a full assessment of these reductions can EPA assess whether there is a basis for this transport rule, since there must be nonattainment to support such a transport rule. EPA is reminded of the Court mandate that any effort to regulate upwind states once the downwind state has achieved attainment would be prohibited as "over-control". Glaring illustrations of air quality significant omitted control programs are the Pennsylvania EGU NOx RACT II rule and the myriad of NEOTC measures.

With respect to the Pennsylvania EGU NOx RACT II program, the applicable rule calls for emission reductions to take effect in January 2017. From data provided by Olympus Power<sup>9</sup>, it is apparent that EGU NOx emissions from EGUs in 2017 will be only 27,010 tons compared with the 52,173 tons of ozone season emissions in modeled by EPA (IPM v5.14) – a 51% reduction.

Relative to Tier 3 vehicle emission and fuel standards program, EPA is setting new vehicle emissions standards and lowering the sulfur content of gasoline beginning in 2017. The vehicle standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles. The gasoline sulfur standard will enable more stringent vehicle emissions standards and will make emissions control systems more effective. This program will have tangible impacts on ambient ozone levels and must be assessed relative to the Connecticut and Wisconsin nonattainment monitors.

Again, EPA's authority to adopt a transport rule of this kind is limited by several factors including the prohibition against imposing any emission reductions on upwind states that would be more than would be necessary to eliminate nonattainment in downwind areas. Before finalizing the rule, EPA is urged to address these additional controls and if it finds that these emission reductions bring about attainment, EPA may not finalize the proposed rule as a matter of law.

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<sup>9</sup> <http://www.midwest ozonegroup.com/files/PARACTNOx.pdf>

## **EPA IGNORED RECENT AIR QUALITY DATA WHEN IT UNDERTOOK TO IDENTIFY PROBLEM AREAS**

In its flawed approach, EPA determined an area to be nonattainment in 2017 if the average of the three DVs for the years 2009-11, 2010-12 and 2011-13 exceeded 75.9 ppb, ignoring more recent data.

Assessing meteorological for the more recent years of 2011 through 2015 brings about a very different result. With the exception of three monitors in Fairfield, Connecticut, all remaining monitors in the eastern U.S. show attainment in 2017. Equally significant is the fact that 12 of the monitors that EPA would call maintenance would no longer meet even EPA's test for maintenance areas. The other 6 maintenance monitors have DVs below 75.9 ppb for the last two sets of DVs raising serious questions about whether even under EPA's test whether they should continue to be considered maintenance areas.<sup>10</sup>

Inasmuch as the only remaining nonattainment or maintenance areas likely to exist in 2017 are the located in Fairfield County Connecticut, there is an inadequate basis for undertaking a regional transport rule. However, the Connecticut residual nonattainment can be addressed on the basis of local controls or at most by pursuing action within the framework of Section 184(c)(1) of the Clean Air Act. Moreover, as earlier stated, the State of Connecticut has itself conceded that "High electric demand day emissions are part of the persistent ozone attainment problems in the OTC" (in NY, CT and NJ per the previous statement) and that reductions in these emissions "are a key to attaining the ozone NAAQS."

## **EPA LABELS ITS CSAPR RULE AS "PARTIAL" DELIVERING AN IMPLEMENTATION PLAN THAT DOES NOT MEET CAA REQUIREMENTS.**

EPA's repeated confirmation that they know this proposal is only a "partial" transport rule raises two significant questions: Does the CAA authorize a "partial" transport rule? and Does a "partial" transport rule circumvent the prohibition against "over control"? EPA provides that "While these reductions are necessary to assist downwind states attain and maintain the 2008 ozone NAAQS and are necessary to address good neighbor obligations for these states, the EPA acknowledges that they may not be sufficient to fully address these states' good neighbor obligations." 80 Fed. Reg. at 25714. EPA explains its anticipated development of a subsequent rule to complement the partial one being proposed. EPA states:

To evaluate full elimination of a state's significant contribution to nonattainment and interference with maintenance, EGU and non-EGU ozone season NOx reductions should both be evaluated. To the extent air quality impacts persist after implementation of the NOx reductions identified in this rulemaking, a final judgment on whether the proposed EGU NOx reductions represent a full or partial elimination of a state's good neighbor obligation for the 2008 NAAQS is therefore subject of an evaluation of the contribution to interstate transport from additional non-EGU emission sectors.

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[http://www.midwestozonegroup.com/files/Alternate\\_Design\\_Value\\_Calculation\\_and\\_Attainment\\_Demonstration.pdf](http://www.midwestozonegroup.com/files/Alternate_Design_Value_Calculation_and_Attainment_Demonstration.pdf)

80 Fed. Reg. at 75709.

The basics of the CAA require that “each State shall, adopt and submit . . . a plan that provides for implementation, maintenance, and enforcement of such primary [and secondary] standard. . . .” 42 U.S.C. 110(a)(1). “Each such plan shall contain adequate provisions prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard.” 42 U.S.C. 110(a)(2)(D)(i)(I). The CAA provides that EPA shall promulgate a Federal implementation plan at any time within 2 years after the Administrator finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria . . . or disapproves a State implementation plan in whole or in part. 42 U.S.C. 7410(c)(1)(A)-(B). The language of the CAA speaks to EPA filing a federal implementation plan that would do that which the State has failed to complete, a plan to eliminate significant contribution from that State. The statute does not describe a process for EPA to issue a partial solution to that which a state has failed to complete. It appears that EPA reads the CAA to allow it to delay development of a plan that meets the minimum criteria for an implementation plan. ARIPPA raises this concern and invites EPA to revisit the legality of only developing a “partial” FIP.

The U.S. Supreme Court in *EME Homer City* affirmed the appropriateness of the first CSAPR transport rule relative to its significance test. CSAPR I provided that upwind emissions rank as “amounts [that] . . . contribute significantly to nonattainment” if they (1) constitute one percent or more of a relevant NAAQS in a nonattaining downwind State and (2) can be eliminated under the cost threshold set by the Agency.” In CSAPR I, EPA considered both the magnitude of upwind States’ contributions and the cost associated with eliminating them. The Supreme Court offered that, “Using costs in the Transport Rule calculus, we agree with EPA, also makes good sense.” Id at 1607. The distinction from the rule the Supreme Court was reviewing and that being proposed today is the Supreme Court was managing a transport rule that developed comprehensive state budgets. The proposed rule before us only addresses one source category and therefore its cost analysis does not establish a comprehensive economic analysis for the states. EPA departed from the development of a comprehensive budget in this proposal. EPA offers little justification for its failure to develop a complete rather than partial FIP, other than they did not have adequate time. “Given the time constraints for implementing NOx reduction strategies, the EPA believes that implementation of a full remedy may not be achievable for 2017, even though a partial remedy is achievable.” 80 Fed. Reg. 75715. The Supreme Court speaks to CAA timing by providing that “[The D.C. Circuit] allowed a delay Congress did not order by placing an obligation on EPA to provide specific metrics to States before they fulfilled their Good Neighbor obligations.” *EME Homer City* at 1601. “The D.C. Circuit, we hold, had no warrant thus to revise the CAA’s action-ordering prescriptions.” *Id.* It is upon this basis that ARIPPA questions the legality of EPA’s action that fails the CAA FIP timing requirement for developing an adequate implementation plan that meets the minimum criteria.

Additionally, there is the unanswered question as to whether EPA's entire proposal calls for a reduction of emissions that is more than is necessary to achieve attainment in every downwind State. *See, EME Homer City at 1608.* The proposed rule creates a process of a piecemeal attainment strategy that does not afford the public appropriate notice of the plan to allow for comment and assessment of the larger question of over control. Assessment of "over-control", may only be done to a full set of emission controls for all sources in the upwind state. ARIPPA invites EPA to assess further the legality of this "partial" FIP. We also invite EPA to reassess whether over-control factors (i.e. inaccurate and incomplete modeling inputs) already exist that distort even further the impacts of this partial FIP.

### **EPA DOES NOT CLAIM ITS CSAPR RULE RESOLVES ANY AIR QUALITY PROBLEMS LEAVING THE READER TO QUESTION ITS PURPOSE**

While EPA claims that the proposed NOx controls result in "meaningful" ozone improvements, that claim is contradicted by the fact that the totality of the emission reductions called for under this proposal are not sufficient to change the attainment status of any one monitor or eliminate any state's significant contribution. 80 Fed. Reg. at 75736-7. When EPA rejected \$500/ton controls, it did so because that level of control did not "resolve" any identified air quality problems. 80 Fed. Reg. at 75733, f/n 95. When EPA moved to consideration of \$1300/ton controls it abandoned the "resolve" any identified air quality problems test in favor of applying the "meaningful" ozone improvements test.

EPA states that EGU emissions cause ozone impacts of 5-25 ppb in mid-Atlantic metropolitan statistical areas. 80 Fed. Reg. at 75712. This conclusion is difficult to accept because in support of this statement EPA cites a February 2015 published paper that used a 2007 modeling platform and CMAQ in its source contribution estimation of EGUs (5-25 ppb in noted metro areas). *Id.* at 75712, f/n 18. This conclusion has little meaning today since the relative distribution of EGU NOx in 2007 is significantly different (and higher) than that in either 2011 or 2017 as the result of control programs and equipment installation between 2007 and 2011/2017. More recent OSAT work with 2010 and 2011 modeling platforms (including work with LADCO's 2018 modeling) indicate that the ppb contribution of EGUs to these metro areas is significantly lower than noted in this discussion and analysis. Approximately 5500MW of coal retirements have occurred in Pennsylvania.

### **EPA'S PROPOSED LIMITS FOR EGUS ARE NOT FACTUALLY SUPPORTED AND THEREFORE DO NOT REPRESENT ACTUAL EMISSION REDUCTIONS.**

The basic premise of EPA's CSAPR proposal is that NOx emission reductions by 2017 are readily available to EGUs through the operation of existing NOx controls. For coal refuse-fired EGUs, meeting the proposed NOx limits represents the need for some varied efforts. Some may already be meeting the limits because their initial designs facilitate achieving the corresponding emission rates. Other coal refuse-fired units would need to undergo major efforts and investments which even then may not allow them to meet the corresponding emission rates due to initial design issues or fuel quality issues. For bituminous refuse fired units it is very likely they will be unable to meet the corresponding emission rates regardless of additional investment because of the quality of the fuel. EPA has not only established state-wide budgets based upon sweeping assumptions,

but has also determined what unit specific allocations would be used to implement those state budgets. Moreover, EPA states that:

The EPA proposes to implement each state's EGU NOx ozone-season emissions budget in the trading program by allocating the number of emission allowances to sources within that state, equivalent to the tonnage of that specific state budget.... For these 23 states, the EPA would allocate allowances under each state's budget to covered units in that state.

80 Fed. Reg. at 75742.

According to EPA's Regulatory Impact Analysis Summary:

. . . under the FIPs, affected EGUs would participate in the CSAPR NOx Ozone Season allowance trading program. The allowance trading program is the remedy in the FIP that achieves the ozone season NOx emission reductions required by the proposed rule. The allowance trading program essentially converts the EGU NOx emissions budget for each of the 23 states subject to the FIP into a limited number of NOx allowances that, on a tonnage basis, equal the state's ozone season emissions budget. EGUs covered by the seasonal allowance trading program in the proposed FIPs are able to trade NOx ozone season emission allowances among EGUs within their state and across state boundaries, with emissions and the use of allowances subject to certain limits. p. 4.2.

ARISSA has concern that EPA did not adequately assess the community of EGUs to understand which of them (i.e., coal refused-fired, bituminous fired, etc.) are in fact capable of readily available emissions reductions. We object not only to unjustified nature of the state-caps which EPA proposes, but also to unit specific allocations that have been made. Specifically, while EPA has stated that its proposal is based upon the agency determinations that these emission reductions are readily available by the ozone season of 2017, it is apparent that certain units will not be able to do so. Specifically we call your attention to a spreadsheet set forth in Exhibit 10 which identifies unit specific allocations under the proposal. Further assessment of the underlying factual assumptions embedded in this summary of the best performance those units have achieved during the ozone season rates from 2005 through 2015 for all units in the 23 states must be completed by EPA to clarify whether their assumptions are factually correct. Past performance assessments must be conducted with specificity for each unit and therefore EPA must explain its conclusions and the related state-caps. Additionally, we have concern that the allocation to units that have been retired prior to 2017 results in heavy-handed pressure to force the sale of those allowances. The rule is designed to prohibit the challenge of allocations until 2018, a date after which such would be needed for compliance.

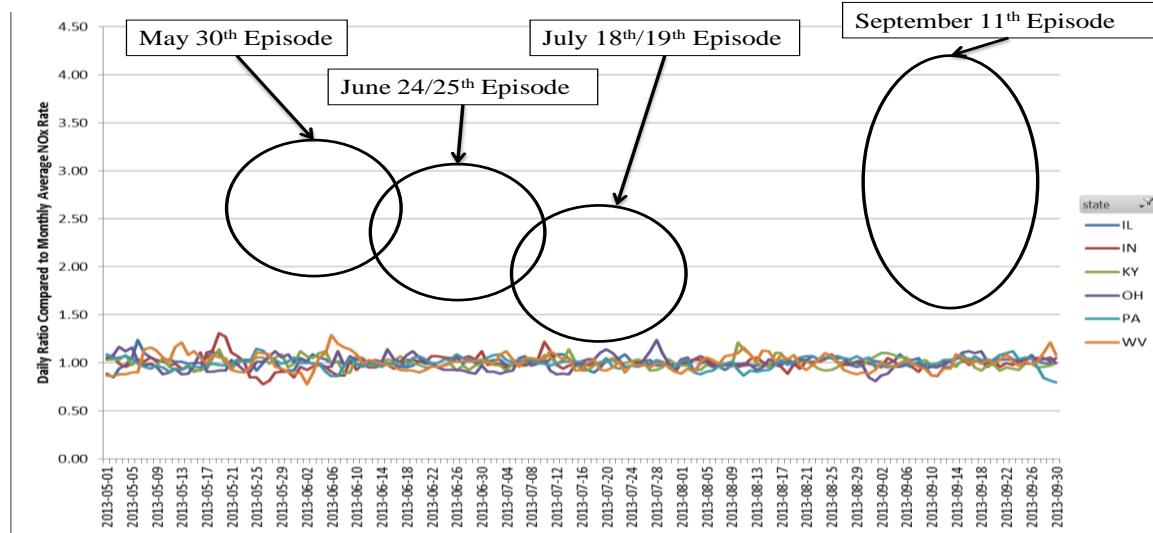
We urge EPA to reconsider both its state caps and unit allocations to assure that the unit allocations are truly allocations that can be achieved with existing controls by the 2017 ozone season.

## ANY EMISSION TARGETS SHOULD BE APPLIED OVER THE ENTIRE OZONE SEASON

EPA proposes to implement these new NOx reductions through the CSAPR EGU NOx ozone season trading program. 80 Fed. Reg. 75741. EPA states that it has historically implemented EGU NOx emission on an ozone season basis without objection. 80 Fed. Reg. 75712. EPA notes however that officials from the Ozone Transport Region have asked EPA to consider additional peak day limits on EGU NOx emissions. 80 Fed. Reg. 75716. ARIPPA opposes any suggestion that it would be appropriate to impose EGU NOx limits in a transport rule on any time scale shorter than the ozone season.

To the extent that officials from the Ozone Transport Region see the need for controls on peak days, they may find that those shorter term controls should be applied on local – and not regional – sources. As was pointed out in the testimony of the Midwest Ozone Group at the New Jersey Clean Air Council Hearing held on April 14, 2015 (see attached presentation material identified as Exhibit 11) a close examination of the high ozone days in 2013 indicates that at the time of that event, there was no increase in EGU NOx emission rates from the states of Illinois, Indiana, Kentucky, Ohio, Pennsylvania and West Virginia.

### STATE LEVEL EGU NOX EMISSION RATE RATIOS DAILY VS. AVERAGE MONTHLY RATE



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By comparison the cumulative NOx emissions from EGUs in the Connecticut, Delaware, Massachusetts New Hampshire and Rhode Island were more than double their normal monthly emission rate. An interesting corollary is the point on local EGU impacts is noted by Connecticut at the New Jersey Clean Air Council Hearing of April 15, 2015, “High Electric Demand Day” (HEDD”) emissions (i.e., days on which localized distributive generation is dispatched by local owners) and concludes that reductions of these emissions, “are a key to attaining the ozone NAAQS.” See Connecticut presentation, slide 10, New Jersey Clean Air Council Hearing, April

14, 2015 (Figure 3, below).

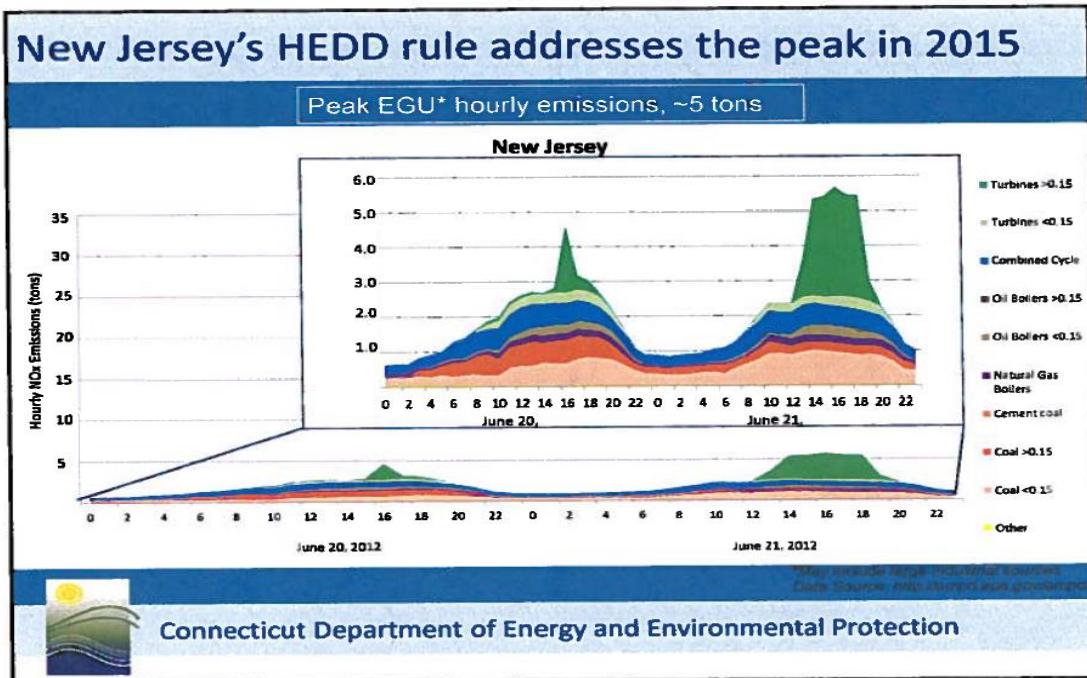
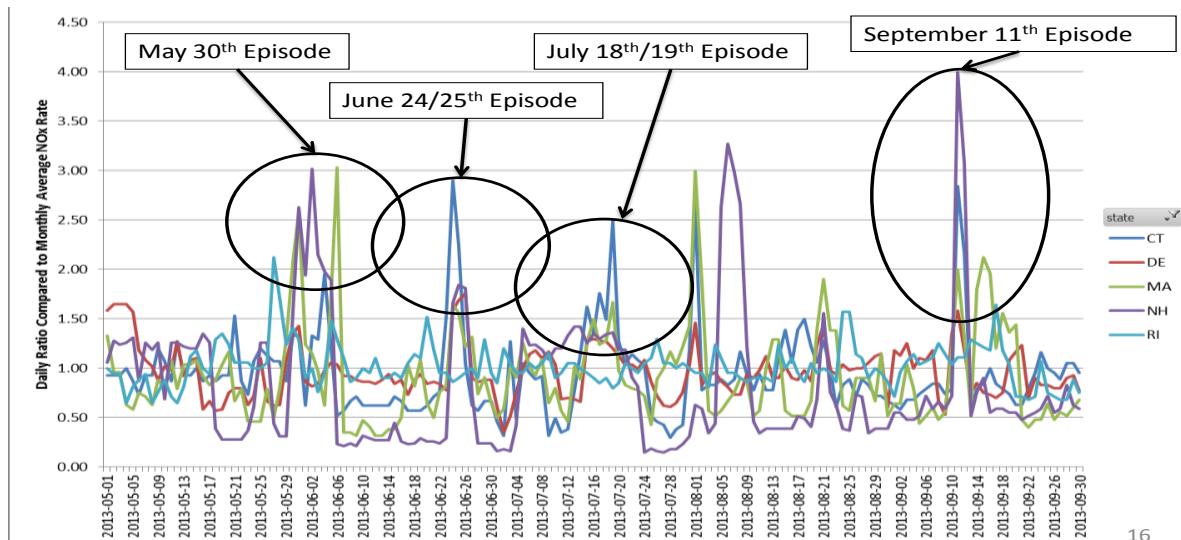


Figure 3. Connecticut, slide 12, New Jersey Clean Air Council Hearing, April 14, 2015

## STATE LEVEL EGU NOX EMISSION RATE RATIOS DAILY VS. AVERAGE MONTHLY RATE



The need for shorter term controls on EGU NO<sub>x</sub> emissions is not a matter to be addressed in a regional transport rule. If the OTR believes that there is need in that region for shorter term controls limits, we respectfully suggest that look to local authority to address those issues or the provisions of Section 184(c)(1) of the Clean Air Act that were are discussed in detail elsewhere in these comments. Limitations established by the variability level and assurance level are all the limitation that is needed.

## **EPA UNLAWFULLY SEEKS TO IMPLEMENT A PROGRAM THAT DICTATES WHICH TYPES OF SOURCES MAY GENERATE ELECTRICITY**

EPA's proposal lists a number of so-called widely used EGU NO<sub>x</sub> control strategies, including shifting generation to units with lower NO<sub>x</sub> emission rates within the same state. 80 Fed. Reg. at 75731. While EPA states that its proposed rule "does not require or impose any specific technology standards to demonstrate compliance", it does not adequately explain how shifting generation to lower NO<sub>x</sub> emitting EGUs could be implemented; does not provide a detailed cost analysis for this mitigation strategy; and does not consult with power authorities, such as the Federal Energy Regulatory Commission ("FERC"), in determining the impact shifting generation may have on the power sector. *Id.*

In *Delaware Dept. of Natural Res. and Env'l. Control v. Env'l. Prot. Agency*, the United States Court of Appeals for the District of Columbia held that the EPA was required to seek input from FERC when implementing the *National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines* final rule, when it justified the rule "on the basis of supporting system reliability." *Delaware Dept. of Natural Res. and Env'l. Control v. Env'l. Prot. Agency*, 785 F.3d 1, 18 (D.C. Cir. 2015). Respondents argued that "grid reliability is not a subject of the Clean Air Act and is not the province of the EPA" and that the EPA should have sought input from FERC during the rulemaking process. *Id.* EPA argued that its authority to regulate engines on the basis of grid reliability came from 42 U.S.C. § 7412(d), which instructs EPA to "consider the cost of achieving emission reductions." *Id.* The court opined that the EPA's reliance on grid reliability was not "the product of agency expertise" and, on remand, instructed the EPA to "solicit input from FERC, as necessary." *Id.*

Here, EPA states that "shifting generation to lower NO<sub>x</sub> emitting EGUs would be a cost-effective, timely, and readily available approach for EGUs to reduce NO<sub>x</sub> emissions . . ."; yet, EPA fails to include an adequate analysis of how shifting generation could be implemented for those entities that have yet to employ this option, and fails to include a cost-analysis for those who may elect to implement this mitigation strategy. 80 Fed. Reg. at 75732. Further, the EPA fails to include input from FERC as to the overall impact this mitigation strategy could have on the power sector, something that falls directly within the purview of FERC, and is not something that is the "product of [EPA's] expertise." EPA's bold efforts to influence control over the market are unprecedented and not within the scope of the agency's statutory authority generally, or more particularly pursuant to the Clean Air Act.

## **EPA MUST ALIGN SIGNIFICANCE ANALYSIS WITH RELIABLE SCIENCE AS DEFINED BY STATE OF THE ART AIR QUALITY MODEL PREDICTIONS**

The CAA includes no specifics regarding establishment of a significance level applicable to interstate transport. CAA Section 110(a)(2)(d) simply requires that:

- (2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall—
  - ...
  - (D) contain adequate provisions—
    - (i) prohibiting, consistent with the provisions of this subchapter, 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, or
      - (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility,
    - (ii) insuring compliance with the applicable requirements of sections 7426 and 7415 of this title (relating to interstate and international pollution abatement);...

There is no further guidance under the CAA to define “amounts [of emissions] which will contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such primary or secondary ambient air quality standard ....” EPA established the 1% significance level in its June 11, 2011 promulgation of CSAPR (76 Fed. Reg. 48211, 48236) and has done so again in this proposal 80 Fed. Reg. at 75714.

As was pointed out earlier in these comments, there are serious concerns about the performance of EPA’s model particularly with respect to all of the nonattainment monitors which coincidentally are located on a land-water interface which significantly complicates the accuracy of the model.

Given these and other uncertainties about the accuracy of EPA’s modeling, we strongly urge that the significance level established in CSAPR and in this proposal be reconsidered and be increased to take account of these modeling limitations. In addition, setting a higher significance level is a useful approach for assurance that there is no over-control of emissions from upwind sources.

## **EPA’S MATHEMATICAL ROUNDING OF ITS SIGNIFICANCE THRESHOLD DELIVERS AWKWARD RESULTS AND NEEDS CORRECTED**

As stated above, we urge that EPA select a significance level that is greater than 1%. Even if EPA elects to stay with a 1% significance level, we believe that EPA has incorrectly determined what the significance level should be to implement the applicable NAAQS. While EPA

acknowledges that for there to be a violation of the applicable NAAQS, design values must be “greater than or equal to 76 ppb”<sup>11</sup>, EPA proposes to set that significance level in this rule-making at a level of 0.75 ppb. 80 Fed. Reg. at 75728. This calculation is obviously incorrect in that a concentration of 75.9 ppb would be considered attainment under the applicable NAAQS and 1% of that concentration is 0.759 ppb.

To appreciate the importance of this error, one need only note that Kentucky is being treated in this proposal as being a significant contributor to a nonattainment area on the basis of predicted concentration of 0.75 ppb. 80 Fed. Reg. at 75727. Had EPA set the significance level at the correct level of 0.759 ppb (based on a 1% significance level), Kentucky would not have a significant impact on any nonattainment area.

This error must be corrected before the rule is finalized.

### **EPA UNDERSTANDS THE IMPORTANCE OF MONITORED DATA TO DETERMINE NONATTAINMENT**

EPA has correctly proposed to take air quality monitoring data into account in making determinations about the existence of areas that have nonattainment receptors. Specifically EPA states:

As the EPA is not replacing an existing transport program in this rulemaking proposal, we are proposing to consider current monitored data as part of the process for identifying projected nonattainment receptors for this rulemaking. Accordingly, in this rulemaking, the EPA is proposing to return to our prior practice of comparing our modeled nonattainment projections to current monitored air quality. For the purposes of this rulemaking, the EPA proposes to identify as nonattainment receptors those monitors that both currently measure nonattainment and that the EPA projects will be in nonattainment in 2017.

80 Fed. Reg. at 75724.

ARIPPA is strongly in favor of basing this rule on the best and most recent data available. This is particularly the case with respect to direct measurement of air quality through the nation’s network of air quality monitors. As we stated elsewhere in these comments, EPA modeling is based on a 2011 base case which simply does not offer an adequate assessment of current air quality in the nation. It is therefore critical to inform the decision about identifying air quality problem areas with data reflecting the direct measurement of air quality, particularly given the certain reductions in emissions that will occur for the foreseeable future. To do otherwise is invite the absurd result of having a monitor such as Harford, Maryland be considered nonattainment because of its modeling prediction on 81.3 ppb when it actually has monitored air quality data for 2012-2014 which shows it to be in attainment with a design value of 75.0. 80 Fed. Reg. at 75727.

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<sup>11</sup> 80 Fed. Reg. at 75725

## **IT IS NOT APPROPRIATE FOR EPA TO CLASSIFY ALL NONATTAINMENT AREAS AS MAINTENANCE AREAS**

EPA's reliance on the CSAPR methodology to address "interference with maintenance" is not only inconsistent with the Clean Air Act, but also inconsistent with both the U.S. Supreme Court and D.C. Circuit decisions on CSAPR. As proposed by EPA, use of a modeled maximum design value, when the average is below the NAAQS to define contribution, results in a conclusion that any modeled contribution is deemed to be significant interference with maintenance. This concept is inconsistent with the Clean Air Act and the U.S. Supreme Court's assessment of its meaning.

EPA provides the following statement in the NODA on "interference with maintenance,"

. . . as part of the approach for identifying sites with projected future maintenance problems, the highest (i.e., maximum) ambient design value from the 2011-centered 5-year period (i.e., the maximum design values from 2009-2011, 2010, 2010-2012, and 2011–2013) was projected to 2017 for each site using the site-specific RRFs. Following the CSAPR approach, monitoring sites with a maximum design value that exceeds the NAAQS, even if the average design value is below the NAAQS, are projected to have a maintenance problem in 2017. In this regard, nonattainment sites are also maintenance sites because the maximum design value at nonattainment sites is always greater than or equal to the 5-year weighted average. Monitoring sites with a 2017 average design value below the NAAQS, but with a maximum design value that exceeds the NAAQS, are considered maintenance-only sites. These sites are projected to have a maintenance problem, but not a nonattainment problem.

80 Fed. Reg. 46271, 46274 (August 4, 2015).

In the proposed CSAPR update, EPA stated:

Moreover, as all nonattainment receptors are also maintenance receptors because the maximum design value will always be equal to or exceed the average design value, it is reasonable to control all sites consistent with the level of control necessary to reduce maintenance concerns.

80 Fed. Reg. at 75730.

The U.S. Supreme Court in *EPA v. EME Homer City Generation, LP*, explains the maintenance concept set forth in the Good Neighbor Provision as follows:

Just as EPA is constrained, under the first part of the Good Neighbor Provision, to eliminate only those amounts that "contribute...to nonattainment," EPA is limited, by the second part of the provision, to reduce only by "amounts" that "interfere with maintenance," i.e. by just enough to permit an already-attaining State to maintain satisfactory air quality.

*EPA v. EME Homer City Generation*, LP 134 S.Ct. at 1604, Ftn 18.

Relative to the reasonableness of EPA's assessment of contribution, the U.S. Supreme Court also provides,

The Good Neighbor Provision . . . prohibits only upwind emissions that contribute significantly to downwind nonattainment. EPA's authority is therefore limited to eliminating . . . the overage caused by the collective contribution . . .

. . . the Good Neighbor Provision . . . requires EPA to eliminate amounts of upwind pollution that "interfere with maintained" of a NAAQS by a downwind State. §7410(a)(2)(D)(i). This mandate contains no qualifier analogous to "significantly," and yet it entails a delegation of administrative authority of the same character as the [the nonattainment language of the Good Neighbor Provision]. Just as EPA is constrained, under the first part of the Good Neighbor Provision, to eliminate only those amounts that "contribute . . . to nonattainment," EPA is limited, by the second part of the provision, to reduce only by "amounts" that "interfere with maintenance," i.e., by just enough to permit an already-attaining State to maintain satisfactory air quality. (Emphasis added.) With multiple upwind States contributing to the maintenance problem, however, EPA confronts the same challenge that the "contribute significantly" mandate creates: How should EPA allocate reductions among multiple upwind States, many of which contribute in amounts sufficient to impede downwind maintenance? Nothing in either clause of the Good Neighbor Provision provides the criteria by which EPA is meant to apportion responsibility."

*Id.* at 1604, ftn 18.

It is noteworthy that the Supreme Court provides that lacking a dispositive statutory instruction to guide it, EPA's decision on the designation of significant contribution must meet the reasonableness test of the Chevron decision for filling the gap left open by Congress. *Id.* at 1604. The emphasis upon the single maximum design value to determine a maintenance problem for which sources (or states) must be accountable, creates a default assumption of contribution. A determination that the single highest modeled maximum design value is appropriate for the purpose to determining contribution to interference with maintenance is not reasonable, either mathematically, in fact, or as prescribed by the Clean Air Act or the U.S. Supreme Court. The method chosen by EPA must be a "permissible construction of the Statute." *Id.* at 1606.

As noted by the D.C. Circuit in the 2012 lower case of *EME Homer City Generation v. EPA*, "The good neighbor provision is not a free-standing tool for EPA to seek to achieve air quality levels in downwind States that are well below the NAAQS." 696 F.3d. at 22. "EPA must avoid using the good neighbor provision in a manner that would result in unnecessary over-control in the downwind States. Otherwise, EPA would be exceeding its statutory authority, which is expressly tied to achieving attainment in the downwind States." *Id.* EPA has not justified its proposal as a necessary to avoid interference with maintenance.

Clearly, the use of a modeled maximum design value, when the average is below the NAAQS to define contribution, results in a conclusion that any modeled contribution is deemed to be significant interference with maintenance. This concept is inconsistent with the Clean Air Act and the U.S. Supreme Court's assessment of its meaning.

## **EPA'S DEPARTURE FROM PAST MAINTENANCE AREA POLICY AS FOUND IN THE CSAPR PROPOSAL LACKS JUSTIFICATION**

In a stated effort to account for historical variability in air quality at a receptor, EPA offered the following proposal for determining identifying maintenance receptors for purposes of this proposal:

... EPA assesses the magnitude of the maximum projected design value for 2017 at each receptor in relation to the 2008 ozone NAAQS and, where such a value exceeds the NAAQS, EPA determines that receptor to be a "maintenance" receptor for purposes of defining interference with maintenance in this proposal, consistent with the method used in CSAPR and upheld by the D.C. Circuit in *EME Homer City II*.<sup>81</sup> That is, monitoring sites with a maximum design value that exceeds the NAAQS are projected to have a maintenance problem in 2017.

80 Fed. Reg. at 75724.

As stated above, however, the approach being advanced by EPA is inconsistent with the holding of the D.C Circuit which called for "a carefully calibrated and commonsense supplement to the "contribute significantly" requirement". It is significant to us and should be instructive to EPA that a careful process has existed for many years related to the identification and management of maintenance areas. Indeed, Section 175A of the Clean Air Act provides:

(a) Plan revision

Each State which submits a request under section 7407 (d) of this title for redesignation of a nonattainment area for any air pollutant as an area which has attained the national primary ambient air quality standard for that air pollutant shall also submit a revision of the applicable State implementation plan to provide for the maintenance of the national primary ambient air quality standard for such air pollutant in the area concerned for at least 10 years after the redesignation. The plan shall contain such additional measures, if any, as may be necessary to ensure such maintenance.

The agency's principal guidance on the management of maintenance areas is set forth in "Procedures for Processing Requests to Redesignate Areas to Attainment", John Calcagni memorandum, 4 September 1992, contains the following guidance on page 9:

A State may generally demonstrate maintenance of the NAAQS by either showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, or by modeling to show what the future mix of source and emission rates will not cause a violation of the NAAQS. Under the Clean Air Act,

many areas are required to submit modeled attainment demonstrations to show that proposed reductions in emissions will be sufficient to attain the applicable NAAQS. For these areas, the maintenance demonstration should be based upon the same level of modeling. In areas where no such modeling was required, the State should be able to rely on the attainment inventory approach. In both instances, the demonstration should be for a period of 10 years following the redesignation.

Given the clear statutory and regulatory directive for the management of maintenance areas, we urge EPA to apply the same approach to this proposed transport rule. By reference we urge EPA to review the comments provided by the Midwest Ozone Group and Alpine Geophysics of the current design values for all 21 problem monitors along with EPA's future year project for each area identified in the proposal. Inasmuch as all of the problem areas, including all of the maintenance areas, will be in attainment with the 2008 NAAQS in 2015, it is inappropriate for EPA to finalize the adoption of this rule. Given the near and longer term attainment status of the maintenance monitors, any additional emission reductions called for under EPA's proposal would result in over-control and be prohibited.

### **EPA'S NARROW FOCUS ON MODELING TO DEFINE MAINTENANCE AREAS IS TECHNICALLY QUESTIONABLE**

EPA proposes to take an approach to identify maintenance areas that is fundamentally different from that used to identify nonattainment areas. Specifically EPA offers the following explanation of how it will identify maintenance areas:

Consistent with the CSAPR methodology, monitoring sites with a projected maximum design value that exceeds the NAAQS, but with a projected average design value that is below the NAAQS, are identified as maintenance-only receptors. In addition, those sites that are currently measuring clean data, but are projected to be nonattainment based on the average design value and that, by definition, are projected to have a maximum design value above the standard are also identified as maintenance-only receptors. We are not proposing that monitored data have any effect on the EPA's determination of maintenance receptors using the CSAPR method since even those receptor sites that are not currently monitoring violations are still subject to conditions that may allow violations to reoccur and therefore have future maintenance concerns.

EPA proposes to identify nonattainment areas taking into account monitoring data. That monitoring data is, of course, vital to an assessment of both nonattainment and maintenance areas. EPA fails to offer an adequate explanation of why monitoring data should not be considered in assessing maintenance areas. We urge that EPA to consider monitor data when identifying maintenance areas. Reliance on monitoring data illustrates the extensive nature of the attainment that does exist at these locations and the important near term investments in controls.

## EPA HAS LOST PERSPECTIVE ON THE CAA CONCEPT OF MAINTENANCE AREAS

EPA's proposal inappropriately applies the nonattainment area significance test to maintenance areas. The proposal provides the same weight to the development of control programs to address maintenance areas as it does nonattainment areas. We object to this proposal both because maintenance areas are not subject to the same "significance" test as applies to nonattainment areas and because maintenance areas do not require the same emission reduction response as nonattainment areas.

As was stated by the U.S. Supreme Court opinion in *EPA v. EME Homer*, April 29, 2014:

The statutory gap identified also exists in the Good Neighbor Provision's second instruction. That instruction requires EPA to eliminate amounts of upwind pollution that "interfere with maintenance" of a NAAQS by a downwind State. §7410(a)(2)(D)(i). This mandate contains no qualifier analogous to "significantly," and yet it entails a delegation of administrative authority of the same character as the one discussed above. Just as EPA is constrained, under the first part of the Good Neighbor Provision, to eliminate only those amounts that "contribute . . . to *nonattainment*," EPA is limited, by the second part of the provision, to reduce only by "amounts" that "interfere with *maintenance*," i.e., by just enough to permit an already-attaining State to maintain satisfactory air quality. (Emphasis added). With multiple upwind States contributing to the maintenance problem, however, EPA confronts the same challenge that the "contribute significantly" mandate creates: How should EPA allocate reductions among multiple upwind States, many of which contribute in amounts sufficient to impede downwind maintenance? Nothing in *either* clause of the Good Neighbor Provision provides the criteria by which EPA is meant to apportion responsibility.

The 2012 D.C. Circuit opinion in *EME Homer v. EPA*, provided the following:

The statute also requires upwind States to prohibit emissions that will "interfere with maintenance" of the NAAQS in a downwind State. "Amounts" of air pollution cannot be said to "interfere with maintenance" unless they leave the upwind State and reach a downwind State's maintenance area. To require a State to reduce "amounts" of emission pursuant to the "interfere with maintenance" prong, EPA must show some basis in evidence for believing that those "amounts" from an upwind State, together with amounts from other upwind contributors, will reach a specific maintenance area in a downwind State and push that maintenance area back over the NAAQS in the near future. Put simply, the "interfere with maintenance" prong of the statute is not an open-ended invitation for EPA to impose reductions on upwind States. Rather, it is a carefully calibrated and commonsense supplement to the "contribute significantly" requirement.

Rather than recognize the distinction between "significance" and "interference" as urged by the Courts, EPA has treated the two as though they are the same. We urge EPA to reconsider this approach and to develop an appropriate test for "interference" with maintenance. EPA must develop an alternative emission reduction approach that accounts for the fact that maintenance

areas are already in attainment and therefore do not warrant the same level of emission reductions as nonattainment areas.

### **EPA'S REPRESENTATION THAT ADDITIONAL MODELING WILL BE RELEASED TO JUSTIFY THE CSAPR PROPOSAL BEGS THE QUESTION OF PUBLIC NOTICE AND COMMENT**

To the extent that EPA proposes a transport rule on the basis of emission inventory and modeling data that are different from that included in the proposed rule, those data must also be made available for public comment. This point is even more significant given EPA statement that EPA will not take earlier NODA comments into account until issuance of final rule. 80 Fed. Reg. at 75720. Also, EPA provides that it has not yet considered the air quality implication of the results of the latest version of its emission inventory as set forth in IPM 5.15 (which includes consideration of the Clean Power Plan) with all states expected to be linked. 80 Fed. Reg. at 75730. As described elsewhere in these comments. IPM 5.15 predicts some 93,000 fewer tons of NOx emissions in 2017 as compared with the results that are the basis for the proposal being advanced by EPA. These results will certainly improve overall air quality and can be anticipated to significantly reduce the concentration of upwind state impacts on downwind problem areas. Indeed, EPA concedes that final modeling results could change the states implicated by the rule. 80 Fed. Reg. at 75710. EPA also offers the following comment on this point:

The EPA notes that the evaluation of cost, NOx reductions, and ozone improvements for the final rule could show different results for different states. For example, one or more states could fully address their good neighbor obligation based on ozone season NOx control requirements represented by one cost level while one or more other states would not fully address their good neighbor obligation at that level and would have ozone season NOX control requirements based on a more stringent cost level in order to fully address or make further progress toward partially addressing their good neighbor obligation.

80 Fed. Reg. at 75738.

In light of the significant differences in emission projections from EGU sources that are expected when EPA considers this more recent emission inventory and in light of the holding of the DC Circuit that the CSAPR remand would provide the opportunity for the submission of new data, EPA has a duty to make its new results available for comment before the rule is finalized.

### **EPA'S TRADING PROPOSAL IN THE CSAPR RULE REPRESENTS INAPPROPRIATE PUBLIC POLICY**

EPA provides for a new source set aside to preserve allocations for new units, generally defined as those units that commenced commercial operation on or after January 15, 2015. The proposal would set-aside 2 percent of the total state budget, plus the projected amount of emissions from planned units. If unallocated, the set-asides are redistributed to unretired existing units before the compliance deadline. 80 Fed. Reg. 75743. Budgets should acknowledge the existing fleet and allocations must be to existing sources first, particularly in light of the investments the industry

has committed toward transformation. It is not apparent that a new source set aside needs to be robust in light of the retirements that will be forthcoming.

The proposed rule mirrors the previous rule variability limit, which defines the amount by which state emissions may exceed the level of the budgets in a given year to account for variability in EGU operations. 80 Fed. Reg. 75744. The assurance provisions include penalties that are triggered when the state emissions as a whole exceed the assurance level. 80 Fed. Reg. 75745. The 3- to -1 allowance surrender penalty on excess tons that are greater than the assurance level represents the heavy-handed nature of EPA's program. EPA has many enforcement tools for failure to meet the ozone season assurance level, it is not apparent a self-implementing penalty of this magnitude is appropriate.

EPA asserts that the transformation of the electric sector will likely result in considerable banking of NOx allowances and therefore additional restrictions on withdrawal are warranted. 80 Fed. Reg. 73746. "Unrestricted use of the bank in this situation could allow emissions to exceed the state budgets, up to the assurance level, year after year." Id. Accordingly, EPA proposes to limit withdrawal of banked allowances starting in 2017 at a surrender ratio such as two-for-one or even as robust as four-for-one. EPA's multiple layers of conservatism communicate its inability to follow any model other than command-and-control. Rather than celebrate the transformation, this proposal represents a reach for a punitive calculation. In function, the variability and assurance limits prevent banked allowances from being used and when combined with surrender ratios prices are forced to rise artificially high. ARIPPA does not support the assumption that without a surrender ratio the air quality benefits and industry changes will reverse

EPA also proposes to artificially reduce the issuance of allowances for the first three years of program implementation. ARIPPA questions whether this effort would not be an over control designed to mask the partial nature of this proposed plan.

EPA proposes to restrict the trading of NOx allocations generated under different programs (1997 ozone NAAQS and 2008 ozone NAAQS). 80 Fed. Reg. 75748. Again, the presumption is that the electric sector will seek a path that is designed to undermine air quality improvements. The surrender rate of 2.5-to-1 has very little justification and represents an arbitrary value. ARIPPA urges the agency to reassess its less than innovative proposal. ARIPPA reminds EPA of its enforcement authorities that already exist within the CAA.

EPA solicits comment on its efforts to level the playing field for those allowances generated at \$3,400 ton versus those generated at \$500 a ton of NOx emitted. It is not apparent that a 2.5 –to-1 ratio addresses ambient air quality goals and therefore its premise is not supported by ARIPPA.

## **THE PROPOSED CSAPR RULE NEEDS AN ALTERNATIVE COMPLIANCE PRICE**

EPA's proposal is premised on the assumption that trading will be available to reduce the cost of the program. At the heart of its proposal is the assumption that the emission reductions it proposes can be achieved at an upper-end cost of \$1,300 per ton.

We recommend that EPA identify what it considers to be the upper end of the cost effectiveness test, providing that a source could make a compliance payment on a voluntary basis, rather than to achieve required emission reductions. Any such payment would be made to a fund dedicated to promoting the reduction of ozone precursor emissions.

Beyond the concept of using any such fund to create an alternative to compliance with the state caps or unit allocations set forth in the proposal, we urge that such alternative compliance payment be established so that once made, the payment would be all that would be needed to comply.

Such an alternative compliance payment was used previously by the agency as part of the program to implement the ozone and particulate matter National Ambient Air Quality Standards. In that instance, EPA allowed a source, facing costs higher than had been anticipated by EPA, to pay a set annual amount per ton to fund cost-effective emission reductions. See: Presidential Documents, "Memorandum of July 16, 1997, Implementation of Revised Air Quality Standards for Ozone and Particulate Matter," 62 Fed. Reg. 38,421 (July 8, 1997).

The development of a default mechanism, such as a voluntary alternative compliance payment, would offer considerable assurance that sources would be able to comply with program mandates at reasonable costs and with the maximum degree of flexibility.

#### **PA NOX RACT EMISSION REDUCTIONS (AND OTHER SIMILAR PROGRAMS) MUST BE EVALUATED BEFORE A TRANSPORT RULE CAN BE DEVELOPED**

Pennsylvania RACT II limitations will be in effect year-round and become effective on January 1, 2017. When these emission reductions were evaluated by Alpine Geophysics for MOG (See: <http://www.midwestozonegroup.com/files/ImpactAnalysisofPennsylvaniaRACTII.pdf>) ozone concentration improvements were noted ranging from 0.1 to 2.3 ppb at monitors as the result of EGU NOx controls planned to be implemented under RACT II in Pennsylvania. It is recognized that with this partial application of the rule, using the average base case design values, the Richmond, NY monitor demonstrates attainment with the 2008 NAAQS. When applying reductions to the maximum design values, three monitors downwind of Pennsylvania, located in Baltimore, MD and Gloucester, Middlesex, and Ocean, NY, show attainment with the 2008 NAAQS.

While the impacts of Pennsylvania's RACT II controls on NOx emissions from EGU sources fall short of exclusively bringing downwind monitors into attainment with the 2008 ozone NAAQS, the reductions associated with this partial implementation of the rule show impact and resultant ozone concentration decreases of up to 1.5 ppb in downwind states.

We recognize that this is not even the full impact of NOx controls associated with the Pennsylvania RACT II rule (there are other non-EGU categories affected with additional NOx and VOC reductions) and that there are additional, northeastern state programs yet to be accounted for in the base case modeling of the proposed CSAPR rule. These programs include OTC model rules on industrial, area, and mobile source NOx and VOC, RACT in Connecticut, controls applied to high energy demand day (HEDD) sources, EGU and mobile source initiatives in Maryland, as well as other state and local initiatives to be in place prior to the 2017 calendar year.

Only after a complete air quality simulation considering emission levels reflective of all planned controls in the impacted areas and upwind states can EPA consider nonattainment and significant contribution modeling appropriate for developing a rule.

## **EPA HAS ENHANCED THE MODEL PROCESSING RAISING SIGNIFICANT CONCERNS ABOUT WHETHER THE OUTPUTS ARE DISTORTED**

Alpine Geophysics has issued a report comparing its computer simulation to that performed by EPA. Significantly, Alpine discovered differences in the results that are much larger than expected. As can be seen from Alpine's report entitled "Review of CAMx HMAX Configuration in Cross State Air Pollution Rule Air Quality Modeling" which can also be found at: <http://www.midwest ozonegroup.com/files/ReviewofCAMxHMAXConfigurationinCrossStateAirPollutionRuleAirQualityModeling.pdf>, the EPA simulation on the day selected predicted higher ozone concentrations than the Alpine simulation over much the western domain with noted lower predictions modeled around the Big Bend area of Texas, in and around Phoenix, and Santa Fe. Lower concentrations are seen in portions of the Midwest and eastern U.S. with concentrated higher predictions in Chicago, Louisville (KY), the New York City metro area, and other metro areas in the southeast. Peak differences demonstrated on this particular day are up to 2.8 ppb.

Since the noted differences in daily ozone concentrations were larger than expected, Alpine looked further into the EPA model and discovered that EPA had altered a parameter in the code. Ultimately Alpine learned that this had been done to make the model run faster and no analysis had been performed to determine the impact of the change on the numeric accuracy of the model.

At this time it is unknown what the impact of the change would have on the relative response to emission changes, or if the model concentration difference could change the conclusions about which monitors may be violating the NAAQS, or be in danger of violating the NAAQS. It is Alpine's conclusion that "the ozone concentration data generated using the modified version of the source code may have had impact on the conclusions of CSAPR modeling, including the associated attainment and significant contribution calculations."

We urge EPA to address this situation by assessing the error and uncertainty created by the change it has made in the model before relying in any way on the results obtained.

## **EPA'S MODEL PERFORMANCE EVALUATION FOLLOWS A TORTURED PATH NEGLECTING TECHNICAL PROTOCOLS FOR LAND/WATER BOUNDARIES**

ARIPIA is also aware of the work performed by Alpine Geophysics in which they examined the appropriateness of EPA's model performance evaluation for critical days.<sup>12</sup> In its modeling in support of the proposed rule, EPA simulated a national domain using a 12km grid resolution domain wide which neglects the important issue of the complex meteorology and/or land-water interfaces in or near the nonattainment or maintenance monitors of interest. (See map

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<sup>12</sup> <http://www.midwest ozonegroup.com/files/ModelPerformanceReviewatMonitorswithComplexMeteorologyLand-WaterInterfaces.pdf>

of locations of Connecticut and Wisconsin nonattainment monitors set forth earlier in these comments) all of which border water. Based Alpine's assessment and on EPA's own guidance related to finer grid cell size selection for areas demonstrating a combination of complex meteorology, strong gradients in emissions sources, and/or land-water interfaces in or near the nonattainment area(s), Alpine finds that the ozone concentrations selected at the Connecticut and Wisconsin land/water boundary locations are insufficiently accurate, in both bias and error, to be considered as representative of the daily concentrations observed at each monitor and for the ten days selected for the RRF calculation. It is Alpine's conclusion that this poor performance will have a direct impact on the future year attainment demonstration and significant contribution calculations that use these values as their basis. ARIPPA urges EPA to review these observations prior to finalizing this proposal.

### **EPA'S EMISSION TARGETS ARE NOT ACHIEVABLE.**

While EPA assumes in its proposal a level of NOx emission reductions from units that are equipped with existing SCR systems, those reductions are more than can be achieved. We believe EPA's assumptions are inaccurate due in part to its misguided comparison of annual and seasonal emission rates and its overestimation of NOx emission reductions available. This may be related in great part to the assumption made by EPA that SCR-equipped units can achieve a lower emission rate than they actually capable of achieving. EPA used the second-lowest monthly NOx emission rate recorded by each unit in its operating history as the starting point for this analysis. It is unrealistic to expect units to achieve a rate that low on a consistent basis. EPA should have used a NOx emission rate for its analysis that is more representative, such as an average of NOx emission rates achieved over a period of years. EPA also erred when it considered data prior to 2009 when it is likely that SCR equipment typically operated only during the five-month ozone season during those years, leaving significant portions of the year as available to perform system maintenance – a circumstance that is not available to many operators today that must operate the equipment year-round.

Pennsylvania DEP currently has NOx RACT Rules that cover combustion sources and these units currently operate SNCR. We believe that EPA is mandating unachievable reductions in NOx emissions from coal refuse-fired EGUs. On average the EPA-proposed reductions for PA units during the ozone period represent about a 74% reduction from allocated allowances, resulting in a NOx emission rate of 0.04 to 0.05 lb/MMBtu. EPA's EGU control strategy includes injection of additional ammonia to achieve lower NOx emissions. In recent tests, the coal refuse-fired units have been able to achieve an emission rate of 0.16 lb/MMBtu, especially burning higher sulfur, low Btu, and high ash coal refuse. As such, when operators attempted to push the NOx emission rate lower by increasing the rate of ammonia injection, an ammonia odor was present in the plant, in the ash, and at the ash management facilities. Detached plumes were observed, resulting in the potential for emission violations and increases opacity. Therefore, the targets set forth by EPA most likely are not achievable and these limited allowances will result in a significant reduction in capacity. This would seriously affect the economic competitiveness of these units in the PJM wholesale electric market, potentially undermining grid reliability.

EPA must correct its unreasonable assumptions to avoid over predicting NOx removal capabilities of existing SCRs.

## **CONCLUSION**

In summary, EPA has failed to document a sound technical basis for proceeding with this air transport rule. As we have shown in our comments, the rulemaking is severely flawed based on a number of reasons, including:

- Had EPA considered the most recent air quality data available in its analysis, it would have found that the only remaining air quality problem area in the East is in Fairfield, Connecticut.
- EPA's proposal is based upon modeling that fails to include emission reductions that will be in effect by the 2017 ozone season. These omitted emission reductions are significantly greater in magnitude than the emission reductions EPA is proposing to achieve in its rule (85,000 tons per ozone season).
- EPA also failed to consider whether legally mandated controls on local sources in Connecticut and other "problem" areas would reduce emissions enough to achieve attainment of the 2008 ozone NAAQS and thereby make unnecessary a transport rule such as the one they have proposed.
- Even though Connecticut itself has called for specific emission reductions from sources in its neighboring states of New York and New Jersey as being the "key" to attaining the 2008 ozone NAAQS, EPA failed to consider those emission reductions and the benefits those reductions would have on Connecticut's air quality.
- EPA has also failed to recognize that international emissions alone are enough to cause "problem" areas to exceed the 2008 ozone NAAQS.
- Rather than comprehensively addressing the questions related to interstate transport of air pollutants, EPA elected to impose additional emission reductions on power plants. It did so for the stated reason that it believed that those reductions could be readily achieved - even though power plants are a small contributor to downwind air quality problems.
- EPA's emission allocations to units are so restricted that they cannot be achieved even though EPA's stated basis for the proposal is that the proposed emission reductions are readily achievable.

Frankly, if the modeling data used as a basis for the rule was current, the alleged regional "non-attainment" problem disappears, except for certain areas in Fairfield County, Connecticut. And this particular problem is not a creature of Pennsylvania's air quality emissions but due to contributions from mobile sources, local and international emissions, and emissions from New York and New Jersey.

This proposal is technically flawed based on poor computer modeling and smacks of an arbitrary manipulation of outdated statistics to try and substantiate a problem that doesn't exist. It's wrong, misguided, and will disproportionately burden the Commonwealth of Pennsylvania. For these reasons, ARIPPA recommends that the proposed rule be withdrawn.

ARIPPA appreciates the opportunity to submit these comments on the proposed CSAPR Rule.