MOG Update

Council of Industrial Boiler Owners
Virtual Environmental Meeting

March 8, 2022

Skipp Kropp

Steptoe & Johnson PLLC

Overview

Revised CSAPR Update Litigation

Ozone NAAQS

- NAAQS Review
- SIP disapprovals
- 2021 Preliminary Design Values

2015 Ozone Transport Rule

Revised CSAPR Update Litigation

Revised CSAPR Update Revised Briefing Schedule

- November 3, 2021: MOG Opening Brief filed
- February 1, 2022: EPA Response Brief filed
- February 25, 2022: Respondent-Intervenor (DOWNWINDERS AT RISK, TEXAS ENVIRONMENTAL JUSTICE ADVOCACY SERVICES, APPALACHIAN MOUNTAIN CLUB, SIERRA CLUB, ENVIRONMENTAL DEFENSE FUND, AND CLEAN WISCONSIN) brief filed
- February 25, 2022: Amicus brief of NEW YORK, DELAWARE, AND NEW JERSEY, THE COMMONWEALTH OF MASSACHUSETTS, AND THE CITY OF NEW YORK filed
- March 25, 2022: MOG Reply Brief due
- April 1, 2022: Deferred Joint Appendix due

Revised CSAPR Update Litigation
MOG Argument

I. EPA Acted Unlawfully and Arbitrarily Following this Court's Remand of the Cross-State Air Pollution Rule Update By Taking a Series of Shortcuts to Meet a Deadline of March 15, 2021, Imposed by a New York District Court
   A. EPA Failed to Conduct Appropriate Photochemical Computer-based Modeling
   B. EPA Failed to Address the "Interfere with Maintenance" Clause of the CAA
   C. EPA Failed to Consider the Air-quality Contribution "Threshold" for Identifying States Subject to the Rule
   D. EPA Denied Stakeholders a Meaningful Comment Period on the Proposed Rule

II. EPA's Approach to Identifying Downwind Receptors (Step 1) Was Arbitrary and Inconsistent with the *Wisconsin* Remand
   A. EPA Failed to Harmonize Good Neighbor Requirements with Nonattainment and Maintenance Requirements
   B. EPA Disregarded Existing Emission Reduction Requirements
   C. EPA Failed to Recognize the Impact of Exceptional Events on the Regulatory Status of Downwind Nonattainment and Maintenance Monitors

III. EPA Arbitrarily Relied on Inappropriate Air Quality Monitoring Data In Making its Determination of Upwind State Significant Contribution to Downwind State Nonattainment or Maintenance Monitors (Step 2)

Revised CSAPR Update Litigation
MOG Argument

IV. EPA Action Imposing Additional Control Requirements on EGUs (Step 3) was Inconsistent with the Wisconsin Remand and Was Based on Erroneous Data

A. EPA's Action was Inconsistent with the Wisconsin Remand Which Determined that the CSAPR Update Rule had Already Properly Addressed Controls on EGU Sources

B. EPA Arbitrarily Determined NOx Reductions Purportedly Available in the Upwind States Based on Data Related to Twenty-two States With Very Different Characteristics

V. EPA Arbitrarily Established at Step 4 Emissions Budgets for the Covered Sources in Each State Subject to the Program

A. EPA's Determination of Conversion Ratios from Group 2 to Group 3 was Based on Data From Twenty-two States With Very Different Characteristics Than the Twelve States that are Subject to the Rule

B. EPA Improperly Factored Retired Units Into the Budget Calculations

Revised CSAPR Update Litigation
EPA Response Brief

I. EPA's Promulgation of The Revised Rule Was Consistent with this Court's Remand in Wisconsin

A. EPA made appropriate and technically sound methodological choices in consideration of this Court's order in Wisconsin

B. EPA reasonably declined to reopen broader legal and policy questions that were not remanded to the Agency in Wisconsin

1. EPA did not reopen the definition of "maintenance" receptors employed in the original rule.
2. EPA did not reopen the contribution threshold employed in the original rule.

C. The period for public comment on the Revised Rule was adequate and consistent with law

Revised CSAPR Update Litigation
EPA Response Brief

II. The Revised Rule's Other Technical Judgments Were Sound.

A. EPA appropriately determined upwind states' responsibility

B. EPA used appropriate data.

1. EPA's modeling of future air quality problems reasonably accounted for ozone reductions that would result from other regulatory programs

2. EPA's modeling of future air quality problems took appropriate account of exceptional events affecting air quality measurements at downwind receptors

3. EPA relied on an appropriate range of higher-ozone days when assessing upwind contributions to downwind air quality.

C. EPA's determination of the additional "significant" reductions that could be eliminated in upwind states was reasonable

1. EPA appropriately considered whether power plants could further reduce emissions to eliminate their significant contribution.

2.EPA appropriately determined an achievable emission rate for existing catalytic controls.

Revised CSAPR Update Litigation Respondent-Intervenor Brief

I. As the Clean Air Act's deadlines are essential to protecting the public from ozone, the EPA did not act arbitrarily in seeking to comply with them and the related orders of this Court.

   A. Ozone pollution poses a significant threat to human health and the environment.

   B. The Clean Air Act requires both state and federal regulators to eliminate unhealthy ozone pollution—and it establishes deadlines for all required actions.

   C. This Court has repeatedly enforced the Clean Air Act's deadlines for eliminating significant interstate ozone pollution.

   D. Given that the challenged rule implements a statutory deadline that was previously `enforced by this Court, the Midwest Ozone Group's baseless bid for additional delay should be rejected

II. If this Court remands the challenged rule, which there is no reason to do, the rule's protections should be left in place during the EPA's reconsideration process.

Revised CSAPR Update Reply Brief

Due March 25, 2022
Issues include:

1. Linear Interpolation of modeling
2. “Harmonization” of timelines between upwind and downwind states

OZONE NAAQS

NAAQS Review

OZONE NAAQS
NAAQS Review

- August 14, 2020 (85 Fed Reg 49830); EPA proposed to retain the current ozone NAAQS (70 ppb primary and secondary standards)

  "…the Administrator has considered the currently available scientific evidence in the ISA, quantitative and policy analyses presented in the PA, and advice from CASAC."

- December 31, 2020 (85 Fed Reg 87256): EPA "finalized" rule retaining current standards, "without revision"

  Administrator has "considered the currently available scientific evidence in the ISA, quantitative and policy analyses presented in the PA, advice from the CASAC, and public comments on the proposed decision"

- Current primary and secondary NAAQS is 70 ppb with indicators, i,e., forms (annual fourth-highest daily maximum, averaged across three consecutive years) and averaging times (eight hours) retained (80 FR 65291, October 26, 2015)

OZONE NAAQS
NAAQS Review

- October 29, 2021: EPA announced that it "will reconsider the 2020 decision to retain 2015 standards, based on the existing scientific record."
- "As with the reconsideration of the particulate matter National Ambient Air Quality (NAAQS), EPA will reconsider the decision to retain the ozone NAAQS in a manner that adheres to rigorous standards of scientific integrity and provides ample opportunities for public input and engagement."
- "This action reflects the Agency's renewed commitment to a rigorous NAAQS review process, with a focus on protecting scientific integrity. EPA will ensure the Clean Air Scientific Advisory Committee (CASAC) is fully equipped to advise the Administrator and will reinstall an ozone CASAC panel to provide targeted expertise and advice, as requested by the CASAC itself."
- "EPA is targeting the end of 2023 to complete this reconsideration."
- (https://www.epa.gov/ground-level-ozone-pollution/epa-reconsider-previous-administrations-decision-retain-2015-ozone)

OZONE NAAQS
SIP DISAPROVALS

EPA has proposed to deny 2015 ozone NAAQS Good Neighbor SIPs with respect to 19 states. These proposals appear in a series of Federal Registers published on February 22, 2022. Each proposal is subject to a comment period that extends through April 25, 2022. The following are excerpts from the proposals related to the following groups of states:

1. Alabama, Mississippi, Tennessee
2. Arkansas, Louisiana, Oklahoma, and Texas
3. Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
4. Kentucky
5. Maryland
6. Missouri
7. New York and New Jersey
8. West Virginia

OZONE NAAQS
SIP DISAPROVALS

Common elements of all proposed disapprovals:

1. Modeling
   - "In general," EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors.
   - Since the release of the modeling data shared in the March 2018 memorandum, EPA performed updated modeling using a 2016-based emissions modeling platform (i.e., 2016v1).
   - EPA proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework. By using the updated modeling results, EPA is using the most current and technically appropriate information for this proposed rulemaking.

OZONE NAAQS

SIP DISAPROVALS

Common elements of all proposed disapprovals:

2. March 2018 Flexibility Memo

EPA notes that certain potential concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 8-hour ozone NAAQS. Attachment A to the March 2018 memorandum identified a "Preliminary List of Potential Flexibilities" that could potentially inform SIP development. However, EPA made clear in that attachment that the list of ideas were not suggestions endorsed by the Agency but rather "comments provided in various forums" on which EPA sought "feedback from interested stakeholders." Further, Attachment A stated, "EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor is EPA specifically recommending that states use these approaches." Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, EPA will thoroughly review the technical and legal justifications for doing so.

OZONE NAAQS
SIP DISAPROVALS

Common elements of all proposed disapprovals:

3. Step 1 Analytic Year

- In general, the states and EPA must implement the interstate transport provision in a manner "consistent with the provisions of [title I of the CAA.]" See CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed "as expeditiously as practicable" and no later than the schedule of attainment dates provided in CAA section 181(a)(1).
- EPA interprets the court's holding in Maryland as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date, which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment.

OZONE NAAQS
SIP DISAPROVALS

Common elements of all proposed disapprovals:

4. Step 2 Contribution Level

   Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, EPA is not at this time rescinding the August 2018 memorandum. As discussed further below, the basis for disapproval of Alabama, Mississippi, and Tennessee's SIP submissions with respect to the Step 2 analysis is, in the Agency's view, warranted even under the terms of the August 2018 memorandum. EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on comment and further evaluation of this issue, EPA may determine to rescind the August 2018 memorandum in the future.

OZONE NAAQS
SIP DISAPROVALS

Common elements of all proposed disapprovals:

5. Step 3 Control Measures

- EPA does not support the concept that reliance on CSAPR Update is appropriate to conclude that no further emissions reductions are necessary under Step 3 for the 2015 8-hour ozone NAAQS. First, CSAPR Update did not regulate non-electric generating units (nonEGUs), and thus this analysis, even for the 2008 ozone NAAQS, was incomplete…. Second, relying on CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. … it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone 8-hour NAAQS and is in 2011 dollars) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS.

OZONE NAAQS
SIP DISAPROVALS

Common elements of all proposed disapprovals:

5. Step 3 Control Measures

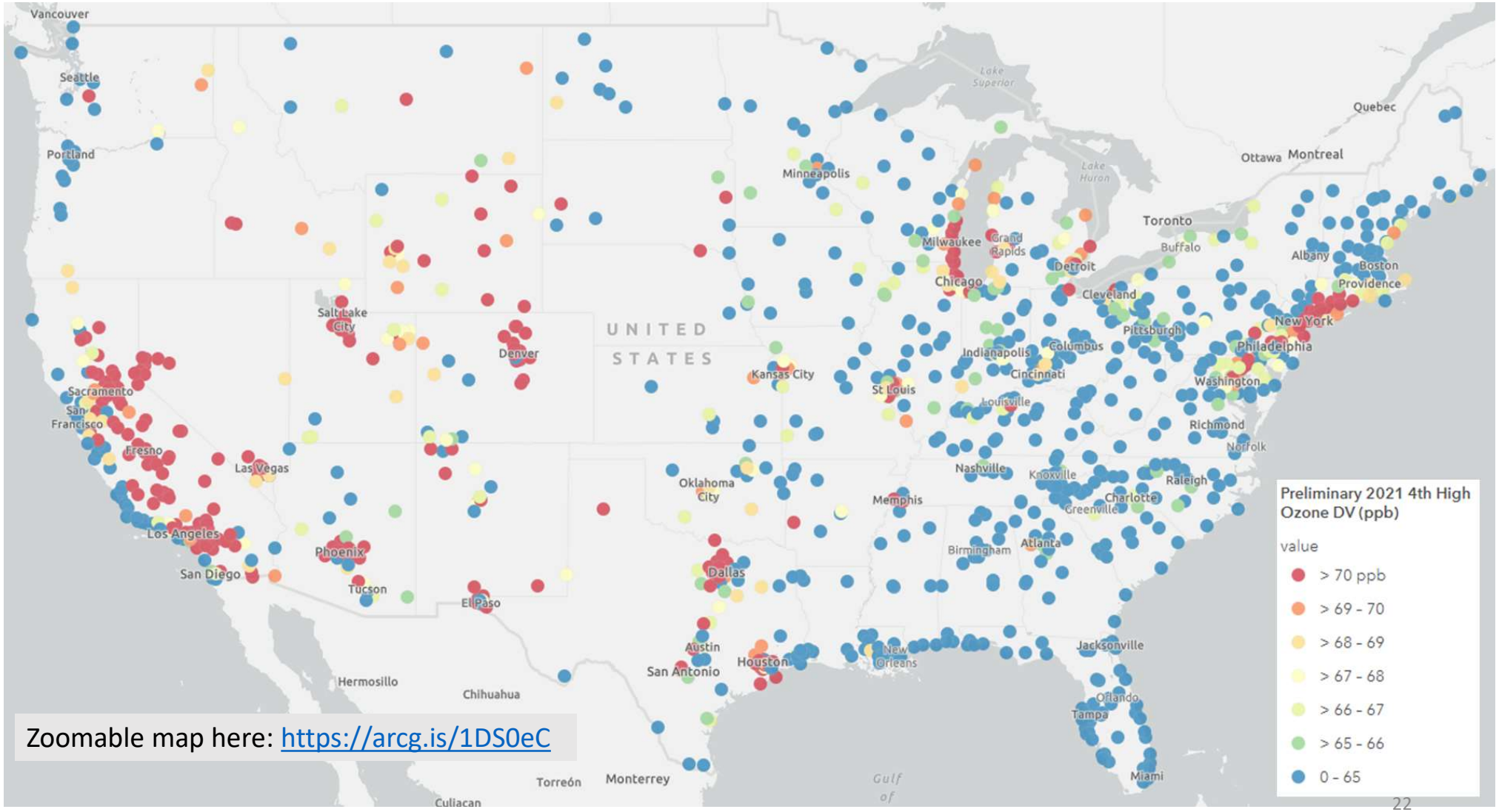
- In general, where EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While EPA has not prescribed a particular method for this assessment, EPA expects states at a minimum to present a sufficient technical evaluation. **This would typically include information on emissions sources,** applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.

OZONE NAAQS

2021 Preliminary Design Values

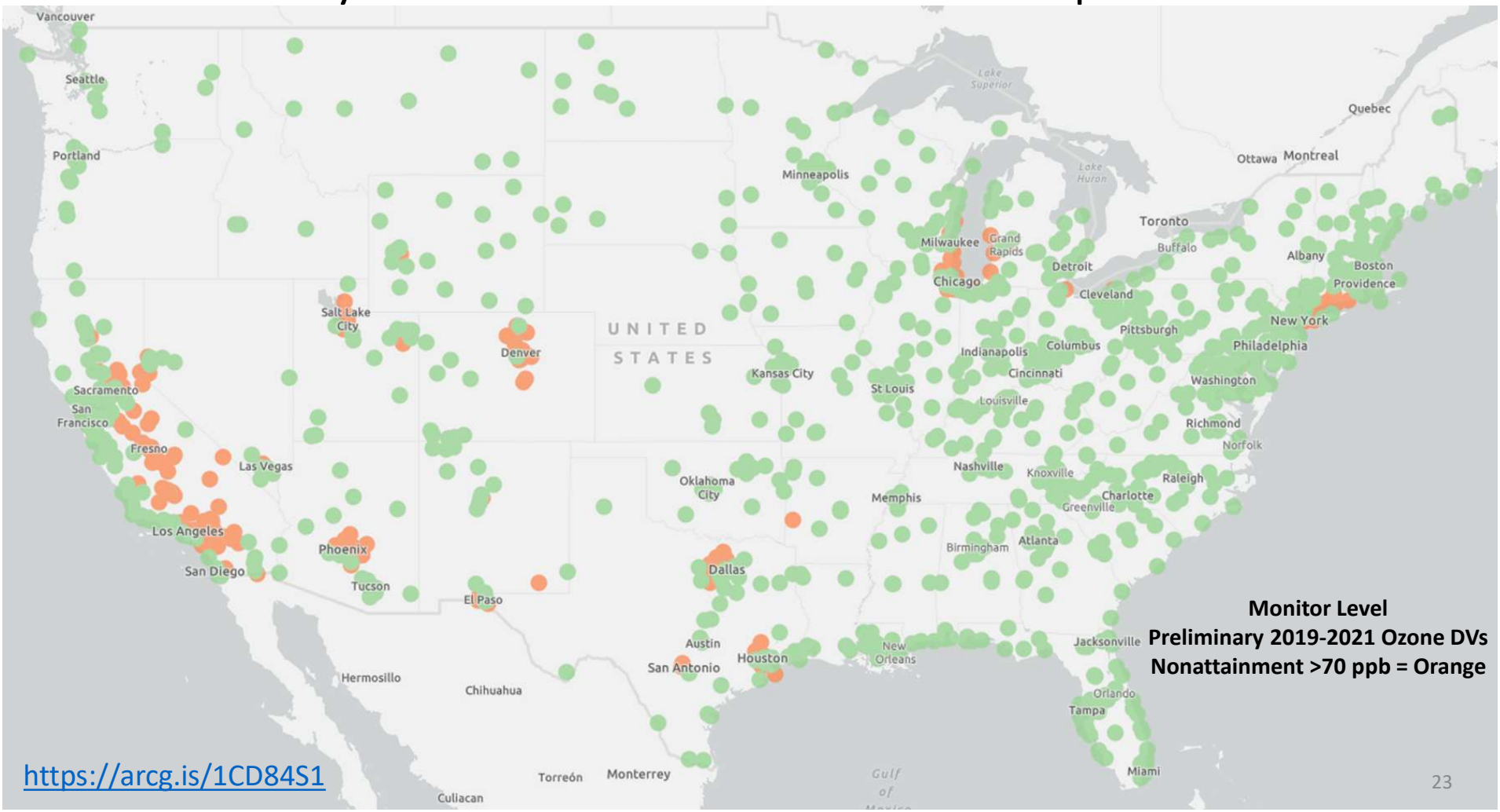
8-Hour Ozone Design Value Maps

Values from Maximum Value Monitor in County



Zoomable map here: https://arcg.is/1DS0eC

Preliminary 2019-2021 Ozone DV Map



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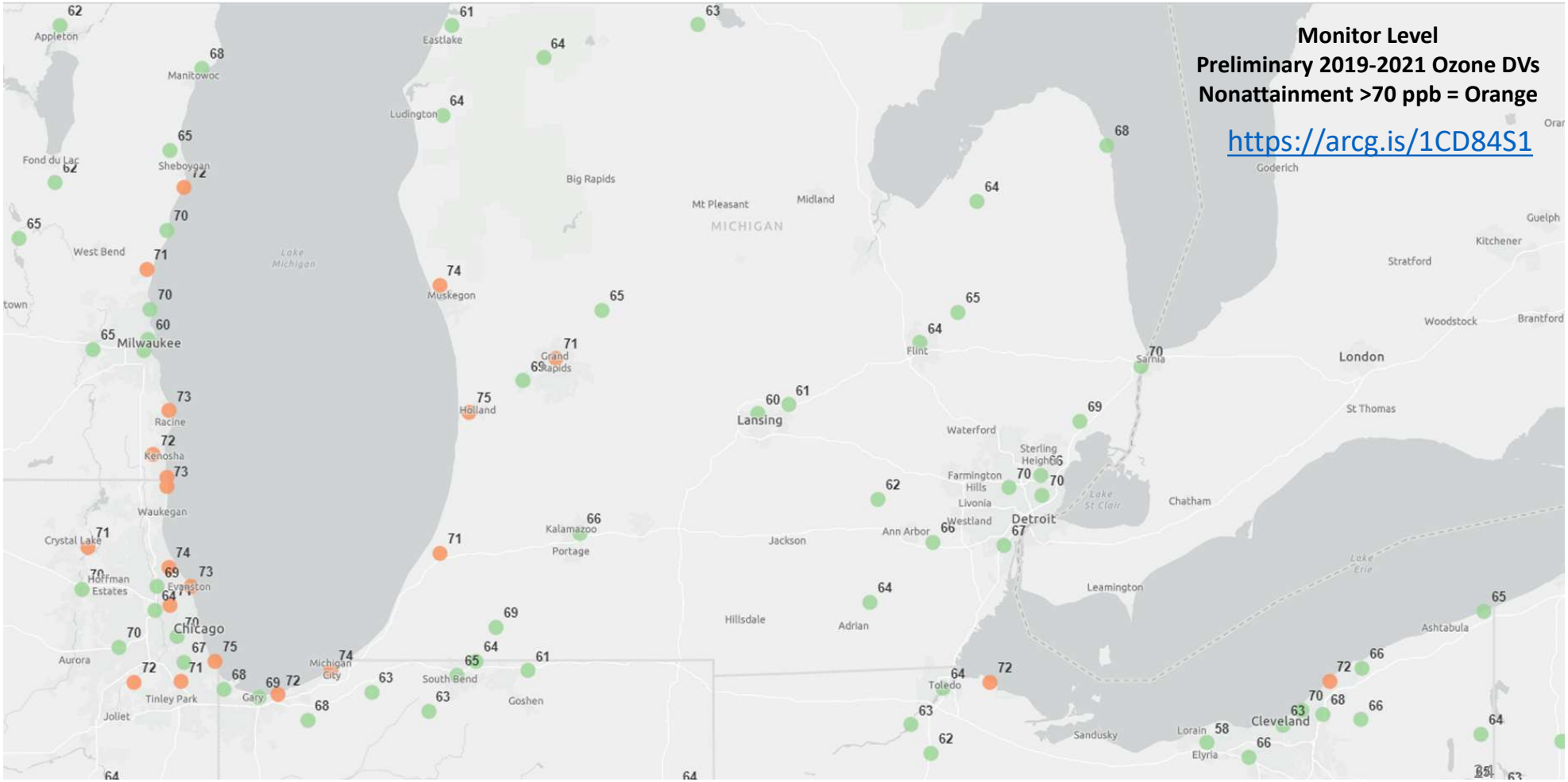
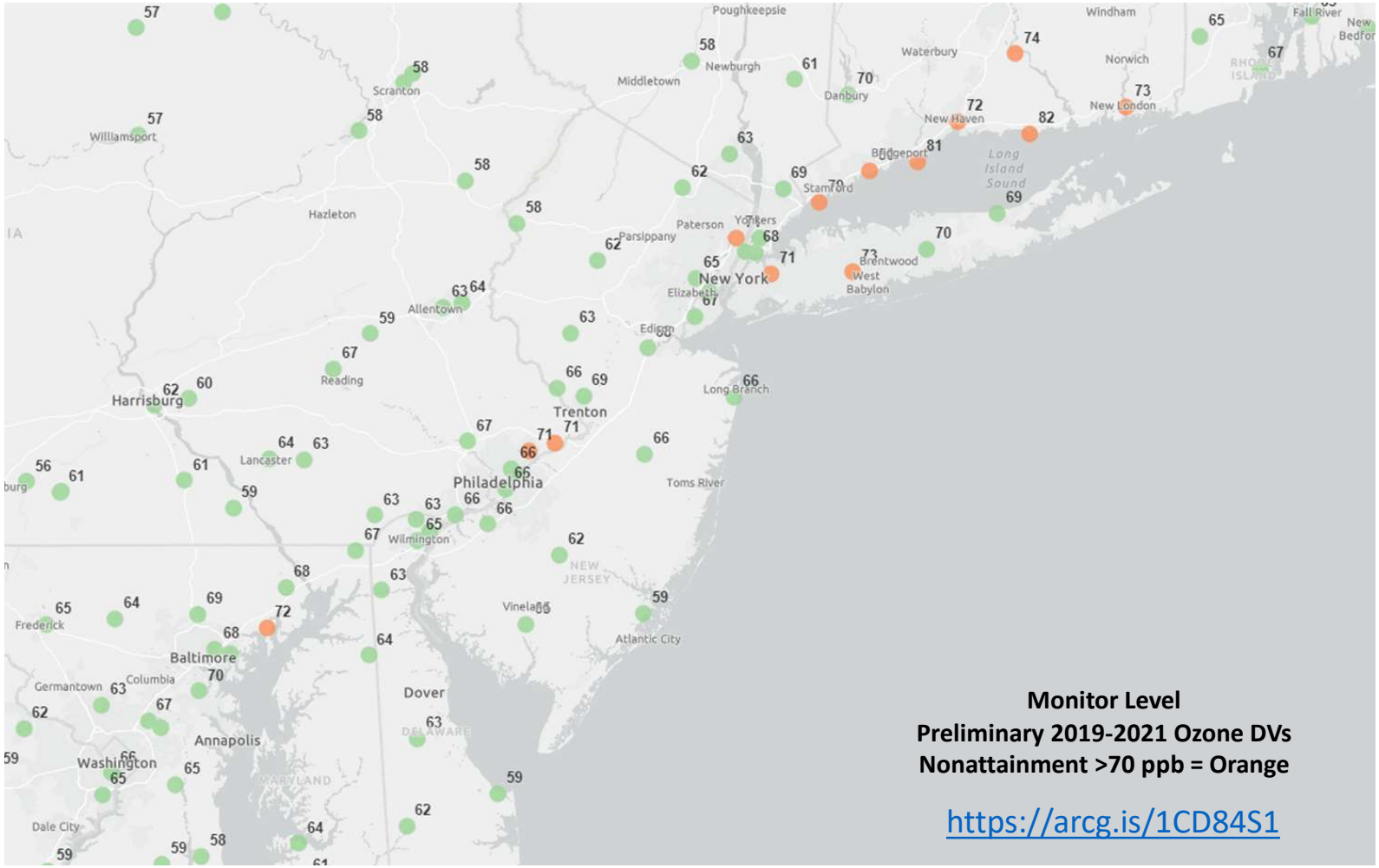
2019-2021 Ozone DV Map – Lake Michigan / Erie



2019-2021 Ozone DV Map – I95 Corridor



Eastern State MDA8 3-yr DVs (2019-21) > 70 ppb

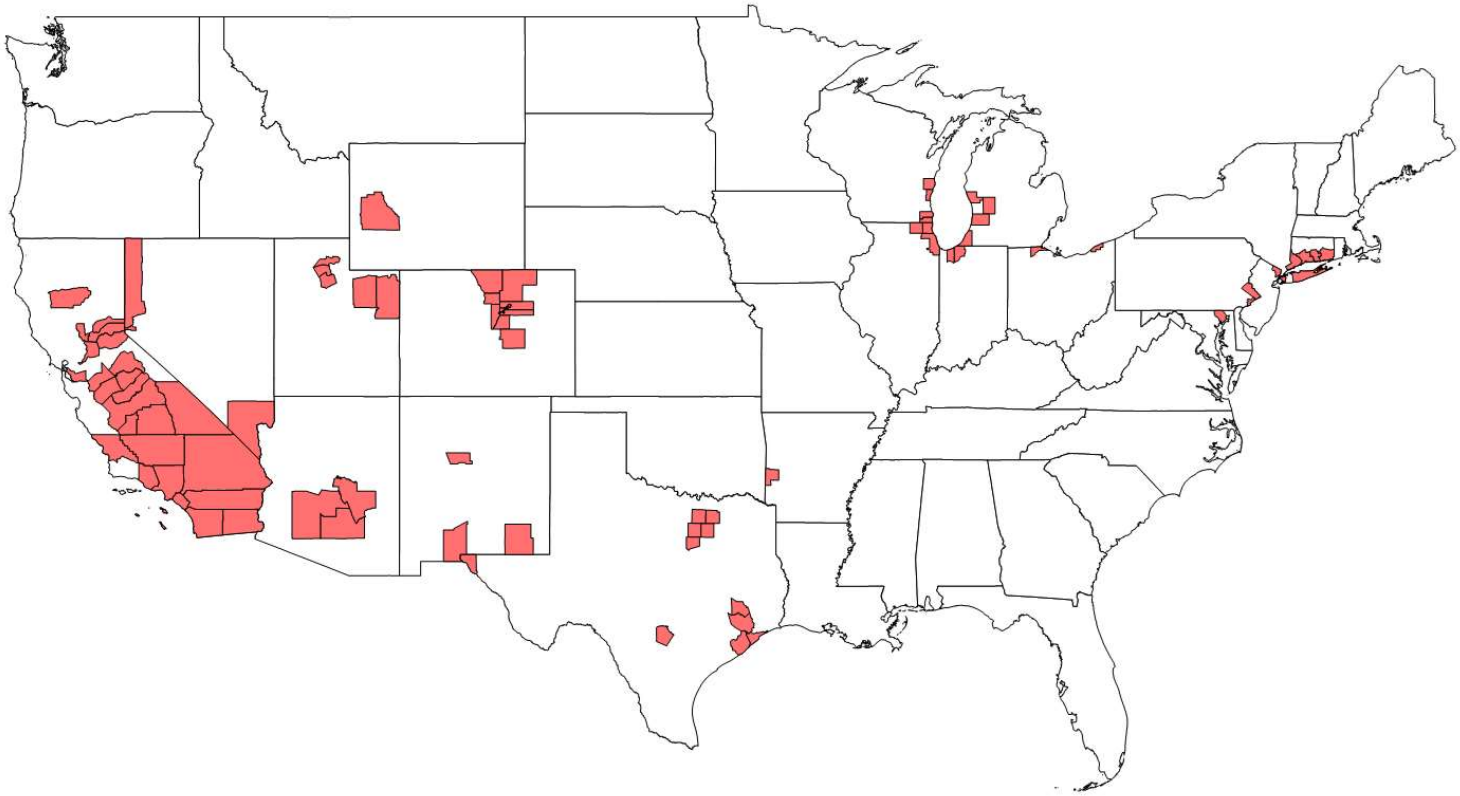
State Name	County Name	AQS Site ID	Prelim 2019-2021 MDA8 DV (ppb)
Connecticut	New Haven	90099002	82
Connecticut	Fairfield	90013007	81
Connecticut	Fairfield	90019003	80
Connecticut	Fairfield	90010017	79
Texas	Harris	482010055	79
Texas	Collin	480850005	76
Texas	Denton	481211032	76
Texas	Tarrant	484390075	76
Texas	Brazoria	480391004	76
Illinois	Cook	170310032	75
Michigan	Allegan	260050003	75
Texas	Bexar	480290052	75
Texas	El Paso	481410037	75
Texas	Harris	482010024	74
Wisconsin	Kenosha	550590019	74
Connecticut	Middlesex	90079007	74
Illinois	Cook	170314201	74
Michigan	Muskegon	261210039	74
Texas	Denton	481210034	74
Texas	Harris	482010051	74
Texas	Tarrant	484393009	74
Indiana	LaPorte	180910005	74
Texas	Harris	482011039	74
Wisconsin	Racine	551010020	73
Connecticut	New London	90110124	73
Illinois	Cook	170317002	73
Illinois	Lake	170971007	73
New York	Suffolk	361030002	73
Texas	Harris	482010416	73

State Name	County Name	AQS Site ID	Prelim 2019-2021 MDA8 DV (ppb)
Texas	Montgomery	483390078	73
Texas	Galveston	481671034	72
Wisconsin	Sheboygan	551170006	72
Connecticut	New Haven	90090027	72
Wisconsin	Kenosha	550590025	72
Illinois	Cook	170311601	72
Indiana	Porter	181270024	72
Maryland	Harford	240251001	72
Ohio	Lake	390850003	72
Texas	Tarrant	484392003	72
Arkansas	Polk	51130003	72
Ohio	Lucas	390950035	72
Texas	Dallas	481130075	72
Texas	Tarrant	484391002	72
Wisconsin	Ozaukee	550890008	71
Illinois	Cook	170310001	71
Illinois	Cook	170311003	71
Illinois	McHenry	171110001	71
Michigan	Berrien	260210014	71
New York	Queens	360810124	71
Texas	El Paso	481410057	71
Texas	Harris	482010047	71
Michigan	Kent	260810020	71
Texas	Bexar	480290032	71
Texas	El Paso	481410044	71
Texas	Harris	482010029	71
Texas	Harris	482011034	71
Texas	Harris	482011035	71
Texas	Johnson	482510003	71

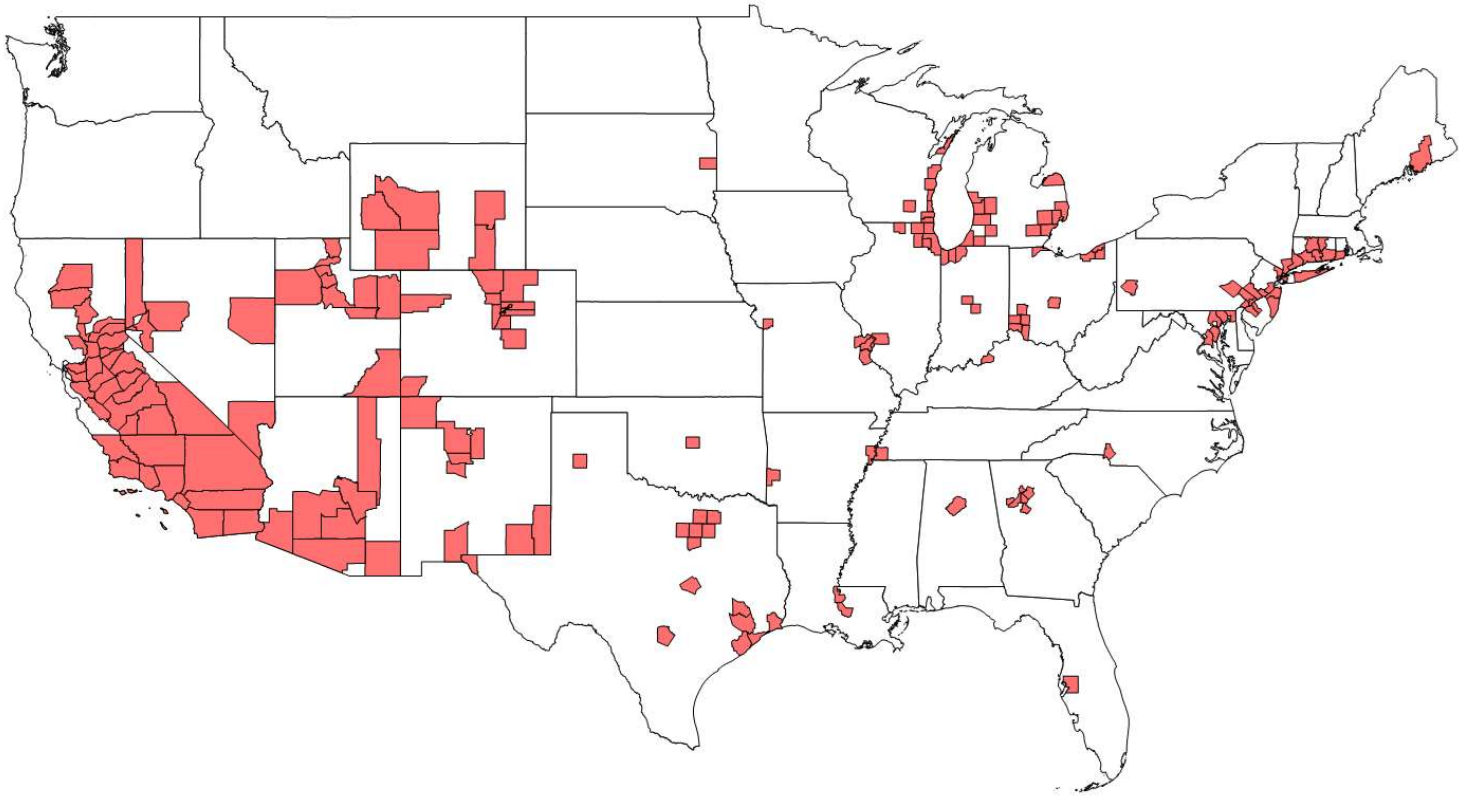
4th High Observation Trends Eastern (non-Texas) States

State Name	County Name	AQS Site ID	2017 4th Highest Daily Maximum Value (ppb)	2018 4th Highest Daily Maximum Value (ppb)	2019 4th Highest Daily Maximum Value (ppb)	2020 4th Highest Daily Maximum Value (ppb)	Prelim 2021 4th Highest Daily Maximum Value (ppb)	5-year Slope (ppb/year)	Prelim 2019-2021 MDA8 DV (ppb)
Arkansas	Polk	51130003	61	63	62	58	97	6.700	72
Connecticut	Fairfield	90010017	74	86	84	77	78	-0.100	79
Connecticut	Fairfield	90013007	81	83	82	76	86	0.300	81
Connecticut	Fairfield	90019003	81	84	81	73	86	-0.100	80
Connecticut	Middlesex	90079007	79	77	76	69	78	-1.000	74
Connecticut	New Haven	90090027	75	72	78	68	71	-1.200	72
Connecticut	New Haven	90099002	86	77	84	80	83	-0.300	82
Connecticut	New London	90110124	78	74	75	71	75	-0.900	73
Illinois	Cook	170310001	78	79	70	76	68	-2.300	71
Illinois	Cook	170310032	74	76	71	77	79	1.100	75
Illinois	Cook	170311003	60	73	69	77	68	2.000	71
Illinois	Cook	170311601	70	68	68	78	72	1.400	72
Illinois	Cook	170314201	70	83	69	79	75	0.600	74
Illinois	Cook	170317002	73	84	69	74	78	0.000	73
Illinois	Lake	170971007	74	74	66	76	77	0.800	73
Illinois	McHenry	171110001	70	74	70	76	69	0.000	71
Indiana	LaPorte	180910005	77	82	71	79	72	-1.300	74
Indiana	Porter	181270024	72	71	68	76	72	0.500	72
Maryland	Harford	240251001	76	74	77	67	73	-1.300	72
Michigan	Allegan	260050003	71	74	71	76	78	1.600	75
Michigan	Berrien	260210014	69	73	66	78	69	0.500	71
Michigan	Kent	260810020	64	71	65	78	71	2.100	71
Michigan	Muskegon	261210039	74	80	68	80	75	0.200	74
New Jersey	Bergen	340030006	74	79	71	66	76	-0.900	71
New York	Queens	360810124	79	73	71	68	74	-1.500	71
New York	Suffolk	361030002	77	74	72	69	79	-0.100	73
Ohio	Lake	390850003	73	76	71	75	72	-0.300	72
Ohio	Lucas	390950035	69	78	65	76	75	1.000	72
Pennsylvania	Bucks	420170012	79	84	67	71	77	-1.700	71
Pennsylvania	Philadelphia	421010024	76	79	71	70	72	-1.700	71
Wisconsin	Kenosha	550590019	79	79	67	78	79	-0.100	74
Wisconsin	Kenosha	550590025	76	80	66	78	72	-1.000	72
Wisconsin	Ozaukee	550890008	73	73	68	73	72	-0.200	71
Wisconsin	Racine	551010020	80	78	66	77	78	-0.500	73
Wisconsin	Sheboygan	551170006	75	83	68	76	73	-1.100	72

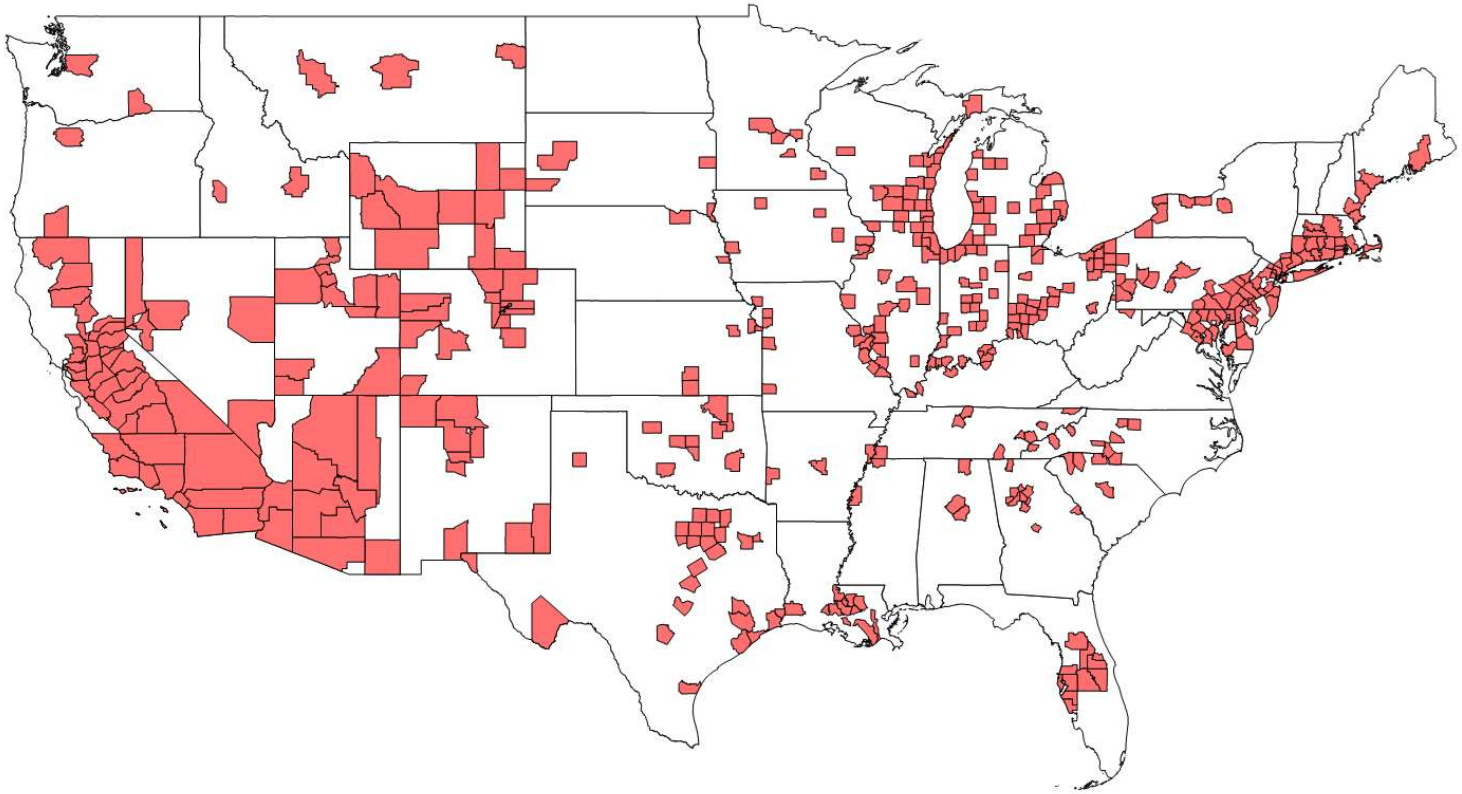
Counties with Prelim 2019-2021 Ozone DV > 70 ppb



Counties with Prelim 2019-2021 Ozone DV > 65 ppb



Counties with Prelim 2019-2021 Ozone DV > 60 ppb



OZONE NAAQS

2015 TRANSPORT RULE

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
IL	7940411	ConocoPhillips Co	2,551.0
IL	8139911	Archer Daniels Midland Co	2,247.2
IL	7808811	Lafarge Midwest Inc	1,827.7
IL	8208511	Illinois Cement Co	1,815.2
IL	7360711	Exxon Mobil Oil Corp	1,671.6
IL	7793411	Ppg Industries	1,669.1
IL	8222511	Marathon Petroleum Co LLC	1,356.7
IL	8191211	US Steel Granite City	1,182.6
IL	2599311	SUEZ DEGS of Tuscola LLC	1,046.9
IL	8065311	Aventine Renewable Energy Inc	867.5

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
IL	8191811	CITGO Petroleum Corp	674.0
IL	7361511	Archer Daniels Midland Co	667.5
IL	4635211	Pilkington North America Inc	625.4
IL	2444211	Rentech Energy Midwest Corp	590.1
IL	8209311	Equistar Chemicals LP	516.4
IL	7298911	ElectroMotive Diesel Inc	480.7
IL	10923611	Gateway Energy & Coke Co LLC	406.7
IL	14423711	GALESBURG	398.3
IL	8139511	Ardagh Glass Inc	391.9
IL	7793311	Tate & Lyle Ingredients Americas LLC	366.0
IL	946411	Ingredion Incorporated Argo Plant	0

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
IN	8183111	ALCOA WARRICK POWER PLT AGC DIV OF AL	9,636.5
IN	7376511	ArcelorMittal Burns Harbor Inc.	8,206.5
IN	3986511	Indiana Harbor East	4,714.2
IN	8192011	US STEEL GARY WORKS	4,343.1
IN	8225311	LEHIGH CEMENT COMPANY LLC	3,700.1
IN	7431611	LONE STAR INDUSTRIES, INC	3,194.5
IN	7247711	BP PRODUCTS NORTH AMERICA INC, WHITING R	2,471.5
IN	8198511	Essroc Cement Corp	2,331.5
IN	8224411	Essroc Cement Corp	2,025.0
IN	7364611	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	1,690.3

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
IN	8202711	Carmeuse Lime Inc	1,687.6
IN	3986611	ARCELORMITTAL INDIANA HARBOR LLC	1,606.0
IN	4885311	Citizens Thermal	1,481.2
IN	7744611	COVANTA INDIANAPOLIS, INC.	1,077.4
IN	8182811	INDIANA HARBOR COKE COMPANY	859.4
IN	5453011	Ardagh Glass Inc	684.8
IN	8074511	TATE & LYLE SAGAMORE OPERATION	577.0
IN	8223611	ELI LILLY & COMPANY CLINTON LABS	556.6
IN	7376411	TATE & LYLE, LAFAYETTE SOUTH (33)	489.0
IN	7376911	SDI Steel Dynamics Incorporated	479.8
IN	4912511	PURDUE UNIVERSITY -WADE UTILITY PLANT	453.6
IN	5552011	UNIVERSITY OF NOTRE DAME DU LAC	435.3
IN	12766611	Wabash River Combined Cycle Plant	61.1

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
KY	7349811	Carmeuse Lime & Stone Inc	1,913.6
KY	5060111	Ak Steel Corp	1,380.3
KY	9619211	Domtar Paper Co LLC - Hawesville Operati	1,303.3
KY	7353311	Kosmos Cement Company	1,097.0
KY	7331911	Marathon Petroleum Co LLC - Catlettsburg	957.3
KY	7351711	Carmeuse Lime Inc	820.9
KY	5926411	AGC Flat Glass N America Inc	634.0
KY	7331511	Newpage Corp	619.4
KY	5198911	North American Stainless	536.0
KY	5929411	Westlake Vinyls Inc	460.4
KY	7365211	CC Metals and Alloys LLC	457.5
KY	13417311	Mississippi Lime Co - Verona Plant	363.9

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
MD	7763811	Luke Paper Company	3,607.1
MD	8200011	Lehigh Cement Company - Union Bridge	2,623.2
MD	7931411	Holcim (US), Inc.	1,522.1
MD	8239711	Sparrows Point, LLC	1,165.6
MD	5857411	Wheelabrator Baltimore, LP	0
MD	7719011	Montgomery County RRF	0

2015 OZONE NAAQS TRANSPORT RULE

- Likely to include NonEGU sources named in 2018 New York 126 Petition
- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
MI	8062611	TILDEN MINING COMPANY LC	5,561.2
MI	8127411	LAFARGE MIDWEST INC.	3,461.8
MI	9535411	Detroit Metropolitan Wayne County	2,993.7
MI	7780811	EMPIRE IRON MINING PARTNERSHIP	2,799.0
MI	8126511	ESCANABA PAPER COMPANY	2,556.7
MI	8483611	U S STEEL GREAT LAKES WORKS	2,129.9
MI	7888111	GUARDIAN INDUSTRIES	2,042.1
MI	8160611	St. Marys Cement, Inc. (U.S.)	2,019.5
MI	8171811	DETROIT RENEWABLE POWER, LLC	1,618.3

2015 OZONE NAAQS TRANSPORT RULE

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
MI	7286011	VERSO PAPER - QUINNESEC	1,226.4
MI	8129311	Holland BPW, Generating Station & WWTP	876.2
MI	8483711	SEVERSTAL DEARBORN, LLC	610.8
MI	7778911	CARMEUSE LIME Inc, RIVER ROUGE OPERATIO	547.0
MI	8157711	Michigan State University	523.5
MI	8229011	Packaging Corporation of America - Filer	521.5
MI	8126211	Decorative Panels International, Inc	464.8
MI	8245611	MARATHON PETROLEUM COMPANY LP	348.2
MI	16662611	EES COKE BATTERY LLC	0
MI	16879411	WESTPORT LD, INC.	0

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State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
NJ	7903711	Phillips 66 Bayway Refinery	918.9
NJ	8177011	Covanta Essex Company	779.5
NJ	7201311	Paulsboro Refining Company LLC	648.4
NJ	7906111	Union County Resource Recovery Facility	621.8

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State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
OH	8463811	Carmeuse Lime, Inc. - Maple Grove Operat	2,968.0
OH	8008811	AK Steel Corporation (1409010006)	2,152.4
OH	8133211	MARTIN MARIETTA MAGNESIA SPECIALTIES INC	2,029.4
OH	3950711	Department of Public Utilities, City of	1,901.9
OH	8131111	P. H. Glatfelter Company - Chillicothe F	1,759.1
OH	8102411	PCS Nitrogen Ohio, L.P. (0302020370)	1,298.4
OH	8150111	CEMEX Construction Materials Atlantic, L	1,175.0
OH	7937411	ArcelorMittal Cleveland Inc. (1318001613	1,161.2
OH	9253511	Pilkington North America Inc (0487010012	1,087.9
OH	8418011	BP-Husky Refining LLC (0448020007)	862.5

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State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
OH	7319811	Toledo Refining Company, LLC. (044801024	829.0
OH	8007011	Lima Refining Company (0302020012)	813.9
OH	8259911	Anchor Hocking, LLC (0123010078)	768.0
OH	8130411	Globe Metallurgical Inc. (0684000105)	765.9
OH	9301711	DTE St. Bernard, LLC (1431394148)	763.1
OH	8014411	General Electric Aircraft Engines: Peebl	755.4
OH	9236811	Haverhill Coke Company LLC (0773000182)	700.9
OH	13571611	INEOS USA LLC (0302020371)	670.6
OH	8115611	ArcelorMittal Warren (0278000648)	661.3
OH	7401911	Alliance Casting Co. LLC (1576010014)	613.5

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State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
OH	7996411	Lafarge North America - Paulding Plant (	536.0
OH	8130511	Kraton Polymers U.S. LLC (0684010011)	533.6
OH	8010911	RockTenn CP,LLC (0616010001)	530.0
OH	8149211	Carmeuse Lime, Inc - Grand River Operati	520.1
OH	8149311	PAINESVILLE MUNICIPAL ELECTRIC PLANT (02	509.0
OH	8301711	Libbey Glass Inc. (0448010066)	464.2
OH	8115911	Owens Brockway Glass Containers - Plant	451.9
OH	7922111	General Electric Aviation, Evendale Plan	420.8
OH	8130211	Graymont Dolime (OH), Inc. (0362000079)	420.2
OH	7996011	Cargill, Inc. - Dayton (0857041124)	400.1
OH	8130611	Orion Engineered Carbons LLC (0684010049)	391.8
OH	8011211	Wausau Paper Towel & Tissue, LLC (1409010043)	340.5

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
PA	8204511	USS/CLAIRTON WORKS	3,287.3
PA	4952111	MAGNESITA REFRACTORIES/YORK	2,807.1
PA	4966111	PH GLATFELTER CO/SPRING GROVE	1,720.3
PA	6463511	PPG IND INC/WORKS NO 6	1,501.7
PA	7873611	SUNOCO INC (R&M)/MARCUS HOOK REFINERY	1,447.2
PA	8219711	COVANTA DELAWARE VALLEY LP/DELAWARE VALL	1,433.7
PA	6651211	ESSROC/NAZARETH LOWER CEMENT PLT I II I	1,346.2
PA	6597611	LEHIGH CEMENT CO LLC/EVANSVILLE CEMENT P	1,163.2
PA	6652211	PHILA ENERGY SOL REF/ PES	1,122.5

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
PA	2989611	GUARDIAN IND CORP/JEFFERSON HILLS	987.4
PA	6559611	DOMTAR PAPER CO/JOHNSONBURG MILL	977.8
PA	6603511	PITTSBURGH GLASS WORKS/MEADVILLE WORKS 8	949.0
PA	7889111	GRAYMONT PA INC/PLEASANT GAP & BELLEFONT	946.9
PA	7991511	HORSEHEAD CORP/MONACA SMELTER	913.7
PA	4843611	COVANTA PLYMOUTH RENEWABLE ENERGY/ PLYMO	835.8
PA	8220011	WHEELABRATOR FALLS INC/FALLS TWP	831.5
PA	3881611	HERCULES CEMENT CO LP/STOCKERTOWN	801.5
PA	7409411	US STEEL CORP/IRVIN PLT	793.3

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
PA	4952011	PROCTER & GAMBLE PAPER PROD CO/MEHOOPANY	719.3
PA	6581211	LANCASTER CNTY RRF/ LANCASTER	656.8
PA	7874511	MONROE ENERGY LLC/TRAINER	617.5
PA	14454711	CONWAY	609.9
PA	6582211	KEYSTONE PORTLAND CEMENT/EAST ALLEN	579.4
PA	4120011	YORK CNTY SOLID WASTE/YORK CNTY RESOURCE	567.0
PA	7407611	SHENANGO INC/SHENANGO COKE PLT	449.6
PA	3884311	CARMEUSE LIME INC/MILLARD LIME PLT	444.3
PA	6582111	INTL WAXES INC/FARMERS VALLEY	424.7

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
VA	10698711	Duke Energy Generation Services of Narro	3,549.9
VA	5798711	Meadwestvaco Packaging Resource Group	3,041.5
VA	5769011	Honeywell International Inc - Hopewell	3,018.0
VA	4182011	Smurfit Stone Container Corporation - We	1,869.5
VA	5039811	Roanoke Cement Company	1,866.1
VA	8517811	Old Virginia Brick Co	1,330.7
VA	5748611	Radford Army Ammunition Plant	1,273.0

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- Non-Electric Generating Units Facility List

State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
VA	5768811	Smurfit Stone Container Enterprises Inc-	1,242.8
VA	5795711	Greif Packaging LLC	620.1
VA	4184511	Chemical Lime Company	581.5
VA	4034811	Jewell Coke Company LLP	520.2
VA	4195111	Covanta Alexandria/Arlington Inc	471.5
VA	6148011	Owens-Brockway Glass Container Division	412.9
VA	4183311	GP Big Island LLC	239.8
VA	4004311	Celanese Acetate LLC	43.2
VA	4183011	Wheelabrator Portsmouth Inc, RDF Facility	0.5
VA	6743611	Covanta Fairfax Inc	0
VA	5747111	International Paper Company	0

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State	Plant ID	Plant Name	Projected 2017 NOx (Tons)
WV	4878711	PPG INDUSTRIES, INC., NATRIUM PLANT	1,946.2
WV	5782411	BAYER CROPSCIENCE	1,749.2
WV	4987611	CAPITOL CEMENT - ESSROC MARTINSBURG	1,495.5
WV	4878911	DUPONT WASHINGTON WORKS	1,043.8
WV	4864311	MOUNTAIN STATE CARBON, LLC	964.9
WV	4985711	WEST VIRGINIA ALLOYS, INC.	891.8
WV	6773811	MORGANTOWN ENERGY ASSOCIATES	818.7
WV	4985611	Rain CII Carbon LLC - Moundsville Calcin	408.5

QUESTIONS?

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