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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Air Resources

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SEP 21 2018

Ms. Amy Smith
Office of Air Quality, N1003
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204

Dear Ms. Smith:

The New York State Department of Environmental Conservation (DEC) appreciates the opportunity to comment on the Indiana Department of Environmental Management's (IDEM) proposed infrastructure State Implementation Plan (SIP), specifically the Interstate Transport Weight of Evidence Analysis conducted pursuant to Clean Air Act (CAA) section 110(a)(2)(D)(i)(I). Otherwise known as the Good Neighbor provision, this section requires states to include adequate measures in their SIPs prohibiting emissions that result in significant contributions to nonattainment or interference with maintenance in downwind areas, such as New York. DEC commends Indiana on the reductions in ozone precursor emissions to date, but requests that IDEM take additional measures to resolve its current significant contributions to the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area (NYMA) for the 2015 ozone National Ambient Air Quality Standards (NAAQS), rather than waiting to see whether its contributions are resolved years into the future.

Most importantly, IDEM should make enforceable commitments for all control measures and operational changes discussed in this transport analysis. IDEM relies on 2023 CAMx projection modeling conducted by U.S. Environmental Protection Agency (EPA) and the Lake Michigan Air Directors Consortium in its Good Neighbor demonstration. EPA's 2023 projection modeling is riddled with unenforceable assumptions and inaccuracies that render the results suspect; enclosed are comments submitted by DEC to U.S. EPA on the many flaws in its projection modeling associated with its "Cross-State Air Pollution Rule (CSAPR) Close-Out" proposal. Future-year market trends are difficult to predict; EPA has discussed the uncertainty in U.S. Energy Information Administration fuel-use projections, and notes that "[b]ecause of the rapid pace of these power sector changes, it is difficult for sector analysts to fully account for these changing trends in near-term and long-term sector-wide projections. This means that regulatory decisions made today could be based on information that may very well be



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outdated within the next several years.”¹ Without enforceable emission limits being implemented at facilities as assumed in the faulty 2023 modeling, there is no guarantee that any emission reductions will actually occur. This serves to underrepresent the extent of downwind nonattainment and maintenance issues, and minimizes the extent of ozone transport from upwind states such as Indiana. Irrespective of projected future design values and emission contributions, Indiana is obligated to resolve its current significant contributions to the New York City metropolitan area, which continues to record exceedances of the 2008 and 2015 ozone NAAQS.

IDEM highlights its “projected reductions in NO_x by 2023 [of] an additional 15-20% based on U.S. EPA and ERTAC emission models.” Models aren’t the drivers of emission reductions – rather, application of emission controls under enforceable limits are the only way to assure these projected emissions take place. IDEM should institute emission limits consistent with SCR optimization at all EGUs forecasted by U.S. EPA to operate at a 0.1 lb/mmBtu emission rate in 2023.² The CAA specifically requires SIPs to “include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements.”³ Indeed, a SIP cannot be considered administratively complete unless it includes “[e]vidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels.”⁴ Without specific enforceable emissions limits and control measures, DEC submits that the SIP is incomplete and does not meet the requirements of the CAA and implementing regulations.⁵

New York and other states that are downwind from Indiana have already adopted control measures that are considerably more stringent than most upwind states. For example, DEC applies Reasonably Available Control Technology (RACT) requirements statewide on both EGUs and non-EGUs, at a current cost threshold of \$5,500 per ton of nitrogen oxides (NO_x) reduced; meanwhile, many upwind states – including Indiana – unreasonably rely on EPA’s flawed claim that EGU NO_x reductions that cost more than \$1,400 per ton would not be cost-effective. For the 2017 ozone season, emissions from Indiana’s electric generating sector were over 400% (more than 16,400 tons) greater than electric generating emissions in New York, with an average emission rate 170% higher.⁶ IDEM should implement emission controls on its major stationary sources based on a more stringent control threshold.

¹ “Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program,” Proposed Rule. Published August 31, 2018. 83 FR 44751.

² “2023en_Engineering_Analysis_Unit_File.xls” workbook released with October 27, 2017 Page Memorandum

³ 42 U.S.C. §7410(a)(2)(A)

⁴ 40 CFR Part 51, App. V, §2.2(g)

⁵ 42 U.S.C. §7410(a)(2) and 40 CFR 60.24

⁶ U.S. EPA Air Markets Program Data

IDEM chose to utilize a 1 part per billion (ppb) contribution threshold in its analysis, rather than the longstanding contribution threshold of 1% of the standard⁷ for purposes of determining which states are “linked” to downwind receptors at step 2 of the CSAPR framework (i.e., 0.70 ppb for the 2015 NAAQS). Despite EPA’s August 31, 2018 memorandum analyzing the use of a 1 ppb threshold, DEC believes there is not a sound basis for IDEM’s piecemeal adoption of such threshold. Rather, the continued use of the 1% threshold is required for consistency across all states and because it is directly tied to the level of the NAAQS; thus, it is a far superior fit to the reductions needed for downwind attainment. If upwind states selectively use a higher contribution threshold while downwind states face a lower, more stringent NAAQS, it will have the inequitable effect of requiring downwind states to reduce their emissions *even more* at greater cost to compensate for upwind states doing *even less* at lower costs. The contribution threshold is tied not only to the linkages established under step 2 of the CSAPR framework, but the resulting emissions budgets for upwind states under step 3. It is unreasonable and clearly inequitable for upwind states, on an ad hoc basis, to use a higher contribution screening threshold at the same time downwind states face a lower NAAQS. For example, while contributions from Indiana are linked to the Richmond County monitor in New York at the 1 ppb level, Indiana significantly impacts three other monitors in the NYMA at the 1% threshold.⁸ Using a higher contribution threshold places the burden of additional reductions at these other downwind monitors entirely on the downwind states (and potentially on other upwind states using a 1% threshold), despite the demonstrable contribution using the settled 1% approach from Indiana at these monitors. This is clearly not an equitable or cost-effective solution to ensuring downwind states such as New York attain the 2015 ozone NAAQS as expeditiously as practicable, and could mean the difference between attainment and nonattainment.

It is true that ozone concentrations are declining over the long term at the Richmond County monitor,⁹ though the use of a linear trendline obscures the current trend in design values. Presented below are ozone design values for the Richmond County monitor, which shows some variation, but design values that are higher in 2018 than 2009 and exhibit an overall *increasing* design value trend since 2009.¹⁰ Indeed, IDEM recognizes that “ozone values and the number of exceedance days have remained steady or increased over the past few years in the Northeast.” This trend has developed despite continual NOx and volatile organic compound reductions from New York, New Jersey, and Connecticut to fulfill their reasonable further progress obligations

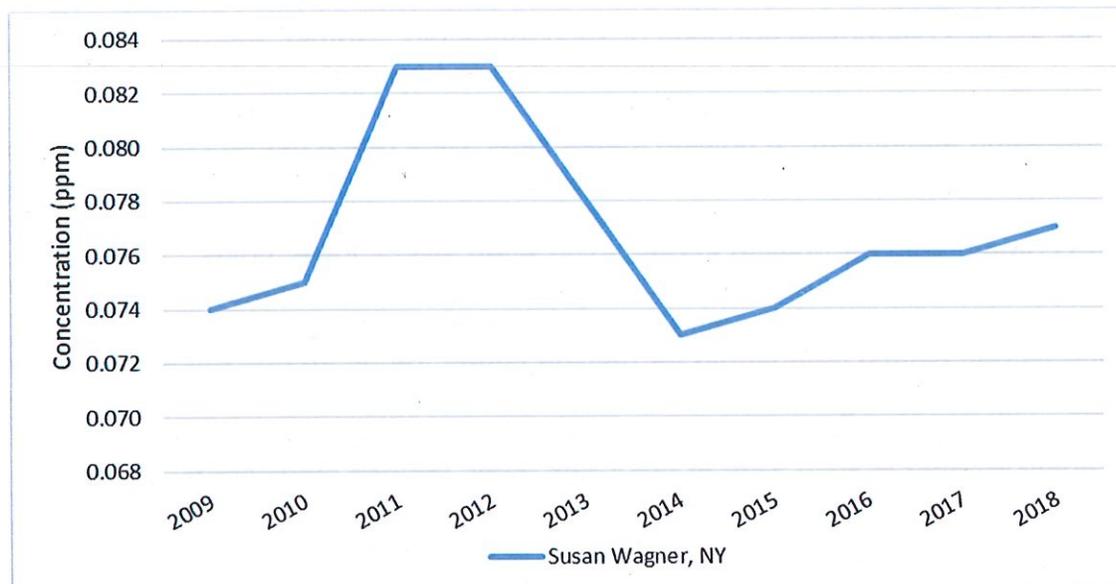
⁷ See, e.g., Cross-State Air Pollution Rule (CSAPR), 76 FR 48208, 48236-38 (Aug. 8, 2011) (using 0.80 ppb as threshold, which is 1% of the 1997 ozone NAAQS); Cross-State Air Pollution Rule Update (CSAPR Update), 81 FR 74504, 74518 (Oct. 26, 2016) (using 0.75 ppb threshold, 1% of the 2008 ozone NAAQS; “much of the ozone nonattainment problem being addressed by this rule is still the result of the collective impacts of relatively small contributions from many upwind states.”).

⁸ IDEM’s proposed “Good Neighbor” Provision Weight of Evidence Analysis, Table 7 – “LADCO’s Ozone Modeling Results – 2023”

⁹ Ibid., Chart 6 – “Ozone Design Values for Richmond, NY Monitor #360850067 (2004-2017)”

¹⁰ Note that 2018 design values are preliminary and represent exceedances as of September 5. The 2018 4th-highest value corresponds to the Fresh Kills monitor in Richmond County, which is being used as a proxy during construction at the Susan Wagner location.

pursuant to 2008 ozone NAAQS requirements for the tri-state nonattainment area (with actual reductions having greatly exceeded the required three percent per year), further highlighting the need for upwind emission reductions.



Lastly, DEC questions the use of Hybrid Single Particle Lagrangian Integrated Trajectory model (HYSPLIT) back trajectories with an end height of 10m to evaluate Indiana's contribution to the Northeastern states. While this height may have been selected to represent the height of the monitor, HYSPLIT documentation recommends against using such low elevations for trajectory analysis, since interaction with the ground is likely to result in inaccurate results.¹¹ The usual methodology for this type of analysis is to use an end height that represents one-half the height of the daytime planetary boundary layer, such as 500m. Contributions from Indiana sources to concentrations at the Richmond County monitor are much more likely to be apparent using this methodology. Selecting the most recent exceedance day analyzed by IDEM¹² (i.e., June 10, 2017) as an example, HYSPLIT reveals 48-hour trajectories at the 500m level originating in northern Indiana, and 48-hour trajectories at the 1500m level passing directly through central Indiana.¹³

In summary, we commend Indiana for reductions in ozone precursor emissions to date, but believe the draft SIP requires significant revisions before it can be considered complete by EPA and in compliance with the requirements of the CAA. If you have any

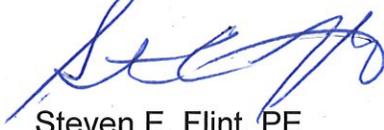
¹¹ "HYSPLIT Cheat Sheet," see particularly "What height(s) should you start a back-trajectory at?" Available at https://ready.arl.noaa.gov/documents/ppts/Cheat_Sheet_2018.pdf

¹² IDEM's proposed "Good Neighbor" Provision Weight of Evidence Analysis, Table 18 – "8-Hour Ozone Exceedance Days at Richmond, New York 2015-2017"

¹³ "Preliminary Evaluation – Ozone National Ambient Air Quality Standard Health Exceedances on June 10, 2017," analysis by New Jersey Department of Environmental Protection, available at <https://www.nj.gov/dep/cleanairnj/airquality2017.html>

questions in relation to this letter, please contact Mr. Michael Sheehan, Director of the Bureau of Air Quality Planning, at (518) 402-8396.

Sincerely,



Steven E. Flint, PE
Director, Division of Air Resources

Enclosure

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OFFICE OF THE COMMISSIONER

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AUG 31 2018

Mr. Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency
Mail Code: 1101A
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: "Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard," Fed. Reg. Vol. 83, No. 132, Pages 31915-31939, July 10, 2018
Docket ID No. EPA-HQ-OAR-2018-0225

Dear Acting Administrator Wheeler:

The New York State Department of Environmental Conservation (DEC) strongly disagrees with EPA's proposed determination that the Cross-State Air Pollution Rule (CSAPR) Update fully addresses interstate pollution transport that impairs New York's ability to meet the 2008 ozone National Ambient Air Quality Standards (NAAQS) (the Proposed Rule). For too long, New Yorkers have been subject to increased asthma and other respiratory illness and even premature mortality due in large part to the transport of air pollution from out-of-state coal-fired power plants. On behalf of the people of New York, I insist that EPA take action now to reduce the upwind pollution that plagues New York, not kick the can down the road until 2023.

For all the reasons explained more fully in the attachment to this letter, EPA's analysis that the New York City metropolitan area will meet the 2008 ozone NAAQS by 2023 is both incredible and irrelevant: incredible because it is based on unreasonable assumptions and ignores EPA's own actions to allow increased pollution; irrelevant because the Clean Air Act requires lower ozone now, not in 2023. Earlier this year, on July 2, 2018, New York experienced ozone levels in the lower Hudson Valley that were the highest seen in the past decade – levels that are "very unhealthy" for the general public, according to EPA's own rating system. EPA's claim that ozone levels will improve significantly by 2023 ignores its regulatory proposals this month designed to increase the consumption of coal and petroleum and allow increased emissions from coal-fired power plants and motor vehicles. In fact, it admits in the Regulatory Impact Analysis for the rollback of the Clean Power Plan that its proposal will increase ozone levels, causing up to 230 additional deaths from elevated ozone levels (and many more from particulate matter).¹ In addition, EPA's conclusion relies on its unsupported

¹ "Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program." EPA OAQPS, August 2018. Table 4-6, page 4-33.



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