



December 4, 2017

Mr. William F. Durham
Director of the Division of Air Quality
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304

Via email to Tammy.L.Mowrer@wv.gov

Subject: West Virginia's Proposed State Implementation Plan Revision Regarding Obligations under the Good Neighbor Requirements of Clean Air Act Section 110(a)(2)(D)(i)(I) for the 2008 Ozone Standard

Dear Mr. Durham:

The Connecticut Department of Energy & Environmental Protection (DEEP) appreciates the opportunity to comment on West Virginia Department of Environmental Protection's (WVDEP's) proposed revision to its State Implementation Plan (SIP) to address Clean Air Act (CAA) Section 110(a)(2)(D)(i)(I) (the good neighbor SIP) requirements for the 2008 National Ambient Air Quality Standards (NAAQS) for ozone. Good neighbor SIPs are required to include adequate permanent, quantifiable and enforceable requirements such that sources in a state do not contribute to nonattainment or interfere with maintenance in any other state. Although DEEP recognizes that WVDEP has made substantial reductions in NO_x emissions in various source categories, emissions from West Virginia continue to significantly contribute to Connecticut's nonattainment of the 2008 ozone NAAQS.

DEEP has demonstrated that even if Connecticut's own ozone precursor emission contribution was completely eliminated, out-of-state transport of ozone and its precursors prevent Connecticut from monitoring as being in attainment for the 2008 ozone NAAQS.¹ Therefore, upwind states' fulfillment of good neighbor SIP requirements is of critical importance to the health of millions of Connecticut residents.

CAA Section 110 prohibits any state from significantly contributing to nonattainment or interfering with maintenance of a NAAQS in any other state. This is a strict requirement that, under the Act, is expected to be complied with within three years of promulgation of the standard, and not later than the downwind state's required attainment date. In the case of the 2008 ozone standard, upwind states including West Virginia should have been in compliance with the good neighbor provision by 2011. Such delays in comporting to CAA requirements harm many people and cause downwind states to bear the economic and public health costs of continued air pollution.

WVDEP demonstrates that it significantly contributes to nonattainment in Connecticut but does not provide the required full remedy or the analysis that the significant contribution has been eliminated. We encourage WVDEP to comply with the good neighbor SIP obligations with all due haste. The proposed SIP is insufficient

¹ 8-Hour Ozone Attainment Demonstration for the Connecticut Portion of the New York-Northern New Jersey-Long Island (NY-NJ-CT) Nonattainment Area, Technical Support Document, Connecticut Department of Energy and Environmental Protection, August, 2017.

and is therefore not approvable by EPA. WVDEP should come into full compliance with CAA Section 110, and submit a SIP reflecting the same. Please see additional comments in the attachment to this letter.

If you have questions about this letter or want to discuss the efforts Connecticut believes are necessary to comply with the good neighbor provision, please get in touch with Mr. Richard Pirolli (860-424-3450) of my staff.

We appreciate West Virginia's emission reduction efforts and urge you to look at best practices from the Ozone Transport Region states and California. The air we breathe does not respect state boundaries, so we all benefit from working together for cleaner air, and the CAA requires it.

Sincerely,



Anne R. Gobin,
Chief
Bureau of Air Management

ATTACHMENT

Connecticut DEEP's Comments on West Virginia's Proposed Good Neighbor State Implementation Plan for the 2008 Ozone Standard.

1. **CSAPR Update Modeling.** We agree with your preference for the CSAPR Update modeling for 2017 over EPA's January 2017 release of preliminary modeling for 2023; therefore, we limit our comments to the CSAPR Update 2017 modeling only.

Using CSAPR Update modeling, West Virginia shows that it significantly contributes to nonattainment at only one of Connecticut's monitors. However, it is important to note that preliminary 2017 ozone season data indicates that the model has under-predicted measured 2017 design values in Connecticut. Adjusting the model predictions to actual data indicate that West Virginia's emissions significantly interfere with attainment at seven monitors in Connecticut, not just the one indicated in the proposal. As the data in the Table below indicate that the model has severely under-predicted design values in Connecticut, we recommend that West Virginia revisit its modeled significance with respect to actual 2017 design values for all states downwind of West Virginia to account fully for its good neighbor obligations.

Monitor Monitor ID	Modeled 2017 Base Case Average Design Value	Modeled 2017 Base Case Maximum Design Value	Preliminary 2017 Actual Design Value	WV Contribution	WV Scaled Contribution
Greenwich 90010017	74.1	76.6	79	0.82	0.87
Danbury 90011123	71.6	73.1	77	1.15	1.24
Stratford 90013007	75.5	79.7	83	0.94	1.03
Westport 90019003	76.5	79.5	83	1.04	1.13
East Hartford 90031003	65.1	66.2	72	0.98	1.08
Cornwall 90050005	61.4	62.0	72	0.83	0.97
Middletown 90070007	69.5	70.9	79	0.98	1.11
New Haven 90090027	66.8	70.1	77	0.76	0.88
Madison 90099002	76.2	79.2	82	0.71	0.76
Groton 90110124	70.8	74.1	76	0.48	0.52
Stafford 90131001	65.7	67.1	71	0.56	0.61

Design Values and Contributions are in ppb.

WV Scaled Contribution is the WV Contribution (from the CSAPR Update modeling), scaled by the ratio of the Preliminary 2017 Actual Design Value to the Modeled 2017 Base Case Average Design Value. Bold values indicate an exceedance of the 2008 standard or significant contribution level.

2. **Regional Trading Programs.** Step 4 in Section 5 of the proposed SIP implies that the only appropriate solution to transport for states found to contribute to nonattainment in a downwind state is through a regional trading program. Though this is an approach EPA has used to obtain regional, seasonal, emissions reductions to support good neighbor SIPs, such a program is neither an exclusive, nor complete, remedy. West Virginia should not constrain itself to emission trading programs as it seeks to reduce its contributions to downwind violations of the NAAQS. The four-step process that West Virginia uses is not a process for fully satisfying Good Neighbor provisions, but rather the process EPA used to reduce upwind emissions through the CSAPR Update as a partial remedy for transport related to the 2008 ozone standard. To address its good neighbor obligations in full, WVDEP should adopt regulations to ensure electric generating units (EGUs) equipped with emission controls operate them optimally at all times and establish unit-specific daily emission limits to address emissions that occur during shorter-term downwind ozone episodes.
3. **State Initiated Measures.** The purpose of a SIP is to allow a state to tailor its own remedies, appropriate to the unique circumstances of the particular State. West Virginia does not indicate that it has taken this opportunity and instead relies only on federally implemented control strategies for complying with CAA Section 110. The CSAPR Update in particular, as well as the other federal requirements for state implementation cited by West Virginia, do not purport to fully address the CAA Section 110 requirements in full.

The only state-specific program that West Virginia mentions is its NSR program. While the NSR programs may indicate that new and modified sources individually do not cause significant nonattainment violations in downwind states, West Virginia's NSR program does not address the issue of the state's collective impact on downwind nonattainment. Nor does West Virginia explain how it has modeled the contribution of individual sources to assure that they do not cause or contribute to nonattainment of ozone standards in upwind states. West Virginia should explain the procedures it uses to satisfy its NSR requirements.

West Virginia describes apparent shutdowns of non-EGU facilities as evidence of in-state emission reductions. It is unclear whether dismantling of emission units and permit revocations have occurred to ensure the permanency of any potential emission reductions. Furthermore, West Virginia does not provide an analysis of remaining facilities in the state to evaluate whether there are reasonable controls or other regulatory actions that could produce emissions reductions. Other states (e.g., New Jersey and Connecticut) have adopted measures which go beyond trading programs and federally mandated programs to achieve cost-effective emission reductions within their state that also produce reduced transport to downwind states. West Virginia should assess and adopt the necessary state programs to specifically address its culpability with respect to downwind nonattainment.

For example, Connecticut and New Jersey have in place NO_x emission limitations for all fuel-burning sources. The emissions limitations are based on reasonably available control technology (RACT), meaning the technology is readily available at a reasonable cost. Under the Connecticut and New Jersey rules, EGUs are subject to emission limits with a 24-hour averaging period. Such RACT-based emission limits may also result in the operation of existing NO_x controls on EGUs, regardless of the cost of allowances under the applicable federal trading program.

Connecticut and New Jersey have also adopted limitations for units that operate mainly to provide electricity on high electric demand days, which often correspond to ozone exceedance days in the summer months. Because these units emit at high rates yet operate few hours per year, the units often are excluded from other emission limiting programs.

4. **Success with respect to the CSAPR budget.** West Virginia offers that it has obtained emissions reductions through the CSAPR Update rule and that it has emitted less than the assurance level for 2017. We are pleased that West Virginia has accomplished these reductions but disappointed that West Virginia did not meet its emissions budget. The majority of states met their CSAPR emission budget for 2017. Additionally, as we stated previously, the modeling on which the CSAPR budget was based under-predicted impacts in Connecticut and the CSAPR Update budget was acknowledged to be an incomplete remedy to transport. Therefore, West Virginia has not demonstrated that it has complied with CAA Section 110 requirements and should take steps to further reduce its emissions and evaluate its contributions to out-of-state nonattainment receptors.
5. **Reasonable, Economically and Technically Feasible.** It is not reasonable that West Virginia continues, nearly ten years after the standard was promulgated, to significantly contribute to nonattainment to a state that is hundreds of miles downwind. West Virginia attempts to argue that because EPA identified emission reductions from the non-EGU sector have occurred, largely through source shut downs, it has made all reasonable, economically and technically feasible reductions. What is reasonable must be considered in light of the clear language of the CAA. The CAA considered it reasonable that upwind states would reduce their contributions to below the significance threshold prior to the downwind state's attainment date. West Virginia fails to address this shortcoming and claims that the state has implemented all measures that have been identified as economically and technically feasible. However, the SIP revision points to no state rule beyond existing federally mandated rules. We suggest that West Virginia revisit stationary, area and mobile source control strategies that it might implement to reduce its contributions to below the significance levels to satisfy the CAA requirements, even if it this occurs on a belated schedule.
6. **Ozone Transport Commission Statement (See attached).** At its November 2017 meeting, the Commission adopted a statement identifying minimum control strategies that should be in all good neighbor SIPs. West Virginia should ensure all these strategies are included in its SIP, as well as the other points noted above.



**RESOLUTION OF THE OZONE TRANSPORT COMMISSION
REQUESTING THAT THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY TAKE ALL ACTIONS NECESSARY TO FULLY
ADDRESS THE GOOD NEIGHBOR PROVISION FOR THE 2008 AND
THE 2015 OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS**

WHEREAS, the Ozone Transport Commission (OTC), a multi-state organization created under the Clean Air Act (CAA), is required to advise the United States Environmental Protection Agency (EPA) on practical and cost-effective strategies or measures, based on sound science, to address the environmental and health problems associated with high ground-level ozone levels in the states of the OTC; and

Connecticut

WHEREAS, the EPA adopted the 2008 ozone national ambient air quality standard (NAAQS) on March 27, 2008 (*73 Federal Register* 16436); and

Delaware

District of Columbia

WHEREAS, the OTC states and the EPA recognize that upwind states are significantly contributing to nonattainment and interfering with maintenance of the 2008 ozone NAAQS in the OTC states due to the emission of ozone precursor pollutants in the upwind states and transport of ozone and its precursor pollutants to the states of the Ozone Transport Region (OTR); and

Maine

Maryland

WHEREAS, the states were required to submit a State Implementation Plan (SIP) by March 2011 that addressed, among other provisions, the “good neighbor” requirements (Good Neighbor SIP) of CAA Section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS; and

Massachusetts

New Hampshire

WHEREAS, many states failed to submit or submitted inadequate Good Neighbor SIPs for the 2008 ozone NAAQS; and

New Jersey

New York

WHEREAS, the EPA adopted the 2015 ozone NAAQS on October 26, 2015 (*80 Federal Register* 65291); and

Pennsylvania

Rhode Island

WHEREAS, the states are required to submit a Good Neighbor SIP by October 2018 for the 2015 ozone NAAQS; and

Vermont

WHEREAS, the EPA adopted an update to its Cross-State Air Pollution Rule (CSAPR Update) for the 2008 NAAQS on October 26, 2016 (*81 Federal Register* 74504) that EPA described as a “partial remedy” to the transport of ozone and ozone precursors; and

Virginia

David Foerter
Executive Director

WHEREAS, the EPA has an obligation to assure a full remedy when states fail to submit, or have submitted inadequate Good Neighbor SIPs, and the EPA’s failure to create a full remedy with all due haste has left millions of residents in the OTR breathing unhealthy air and the OTC states bearing the economic burden of the associated health impacts; and

444 N. Capitol St. NW
Suite 322
Washington, DC 20001
(202) 508-3840
FAX (202) 508-3841
Email: ozone@otcair.org

WHEREAS, in 2017 the greater New York - Northern New Jersey - Long Island, New York nonattainment area has been “bumped up” to moderate nonattainment for the 2008 ozone NAAQS; and

WHEREAS, the EPA has an obligation to assure a full remedy when states fail to submit, or have submitted inadequate Good Neighbor SIPs, and the EPA's failure to create a full remedy with all due haste has left millions of residents in the OTR breathing unhealthy air and the OTC states bearing the economic burden of the associated health impacts; and

WHEREAS, in 2017 the greater New York - Northern New Jersey - Long Island, New York nonattainment area has been "bumped up" to moderate nonattainment for the 2008 ozone NAAQS; and

WHEREAS, the states of Connecticut and New York submitted attainment plans for the 2008 ozone NAAQS demonstrating that attainment cannot be achieved without an effective implementation of the good neighbor requirements of the CAA; and

WHEREAS, the research and modeling conducted by OTC and the OTC states show that the most important strategy for continued progress on reducing ground-level ozone throughout the OTR is regional NOx emissions reductions through actions by the OTC states and by states that significantly contribute to ozone in the OTR, and federal actions; and

WHEREAS, preliminary ozone monitoring for 2015 through 2017 indicates that nonattainment persists in the OTR; and

WHEREAS, preliminary modeling conducted by EPA in support of the CSAPR Update indicates that significant additional NOx reductions are needed in the contributing states to enable OTC nonattainment areas to attain and maintain the 2008 and 2015 ozone standards; and

WHEREAS, the OTC technical committees have completed analyses to identify the top 5 mobile and stationary source strategies for states within and upwind of the OTR to consider as they finalize their overdue Good Neighbor SIPs for the 2008 ozone standard; and

WHEREAS, the OTC states have demonstrated that mobile source strategies have proved effective, including strong idle reduction programs in many states and an effective federal/state partnership on aftermarket catalysts offer significant emission reduction opportunities; and

WHEREAS, the OTC's analysis of contributing state emissions indicates that significant ozone precursor emission reductions can be achieved from various stationary and area source categories that represent a significant portion of the emissions.

WHEREAS, on October 27, 2017, the EPA issued *October 2017 Memo and Supplemental Information on Interstate Transport SIPs for the 2008 Ozone NAAQS* that many OTC states regard as questionable, potentially inconsistent with forecasted enforceable state commitments, and failing to address interstate transport pursuant to the 2015 ozone NAAQS.

WHEREAS, EPA's October 2017 Memo and Supplemental Information does not inform states of their Good Neighbor interstate transport obligations pursuant to the 2008 and 2015 ozone NAAQS.

THEREFORE, BE IT RESOLVED, that the OTC requests that the EPA in all due haste define the elements of a full remedy for transport of ozone pollution pursuant to the 2008 and 2015 ozone NAAQS. This will inform states of their obligations to ensure an equitable treatment of NOx emissions across states

and include NO_x control of substantial source categories in each state that significantly contributes to nonattainment or maintenance concerns in a downwind state; and

BE IT FURTHER RESOLVED, the OTC requests the EPA to work with states to refine the modeling described in the EPA October 2017 Memo to accurately inform states of their Good Neighbor SIP obligations pursuant to the 2008 and 2015 ozone NAAQS.

BE IT FURTHER RESOLVED, that the OTC suggests that the EPA should not approve a Good Neighbor SIP from a state that significantly contributes to another state's ongoing nonattainment or interferes with maintenance of the 2008 or 2015 ozone NAAQS without including appropriate remedies. At a minimum, such a state must demonstrate that all necessary and appropriate emissions reduction measures have been adopted or the state has committed to seek adoption of such measures; and

BE IT FURTHER RESOLVED, that the OTC urges the EPA to ensure that all states that are significantly contributing to OTC nonattainment areas for the 2008 or 2015 ozone NAAQS consider, at a minimum, the following high priority regional NO_x reducing strategies as such states develop Good Neighbor SIPs. These strategies have been identified by the OTC technical committees based on the analysis of publicly available emissions data:

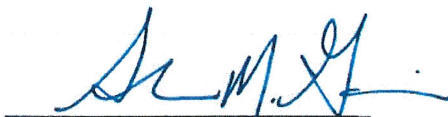
- Requiring existing coal-fired EGUs that have installed SCR or SNCR NO_x control technology to optimize the use of those control technologies each day of the ozone season,
- Requiring existing coal-fired EGUs that have not installed SCR or SNCR NO_x control technology to install SCR or SNCR control technology if determined to be cost effective and to optimize the use of such control technology each day of the ozone season,
- If appropriate to the source categories within the state, implementing the OTC's recommendations for natural gas pipeline compressor fuel-fired prime movers,
- Implementing the aftermarket catalyst program being developed as part of a public-private partnership among the states, the EPA and the private sector, and
- Implementing an idle reduction program to reduce NO_x emissions from mobile sources that is generally consistent with the OTC's Idling Reduction Documents; and

BE IT FURTHER RESOLVED, that the OTC urges the EPA to work with the OTC states and with upwind states contributing to another state's ongoing nonattainment or interfering with maintenance of the 2015 ozone NAAQS by providing timely guidance and additional NO_x reduction strategies to develop such states' Good Neighbor SIPs.

Adopted by the Commission on November 15, 2017



Benjamin Grumbles, OTC Chair



Shawn Garvin, Vice Chair

