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Affirmative Action/Equal Opportunity Employer

December 6, 2018

David B. Conroy
Chief Air Programs Branch
United States Environmental Protection Agency- Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Re: State Implementation Plan Revision- Good Neighbor SIP for the 2015 Ozone National Ambient Air Quality Standard.

Dear Mr. Conroy,

Enclosed is the revision to Connecticut's State Implementation Plan (SIP) addressing the Good Neighbor obligations for the 2015 ozone National Ambient Air Quality Standard (NAAQS).

The Department of Energy and Environmental Protection (DEEP) published the notice of the proposed SIP revision on September 14, 2018. Comments were accepted through October 18, 2018. A public hearing was offered and scheduled for October 18, 2018. DEEP received one set of comments from the Environmental Protection Agency (EPA) Region 1 and no request for a hearing. The comments and DEEP's responses are documented in the Response to Comments report. In accordance with 40 Code of Federal Regulations (CFR) Part 51 Appendix V, this SIP revision includes:

- Enclosure A: Connecticut Good Neighbor SIP for the 2015 Ozone NAAQS;
- Enclosure B: Public Notice as published on DEEP's website;
- Enclosure C: Certification of Public Review Process and;
- Enclosure D: Response to Comments Report.

The enclosed SIP revision concludes that Connecticut satisfies its Good Neighbor obligations following EPA guidance. DEEP is concerned this guidance and its evolving flexibilities allows states to eliminate themselves from all culpability. To date we are aware of no state submitting a Good Neighbor SIP that indicates they contribute significantly to nonattainment in another state. This is particularly troubling given the extent that Connecticut's ongoing nonattainment is due to air pollution transport from upwind states.

DEEP looks forward to EPA acting to implement meaningful and timely processes to remedy the ozone transport problem. If you have any questions regarding this SIP revision please contact Kathleen Knight at 860-424-3823 or Kathleen.Knight@ct.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy R. Babbidge". The signature is fluid and cursive, written over a light blue horizontal line.

Tracy R. Babbidge
Chief, Bureau of Air Management

Enclosures

cc: Ariel Garcia, Acting Manager, Air Quality Unit, EPA R1

Enclosure A

CONNECTICUT GOOD NEIGHBOR SIP FOR THE 2015 OZONE NAAQS



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

November, 2018

Introduction

On October 1, 2015, the Environmental Protection Agency (EPA) revised the primary and secondary National Ambient Air Quality Standards for ozone (NAAQS). Pursuant to Clean Air Act (CAA) section 110(a)(1) and (2), all states are required to submit any necessary revisions to their State Implementation Plans (SIPs) to provide for the implementation, maintenance and enforcement of any revised or new NAAQS. These implementation plans are known as infrastructure SIPs and include the requirement, under CAA section 110(a)(2)(D)(i), to prohibit emissions from within the state from contributing significantly to nonattainment or interfering with the maintenance of a NAAQS in any other state. This requirement under CAA section 110(a)(2)(D)(i) is known individually as the “good neighbor” SIP. Due to its complexity the good neighbor SIP is often addressed separately from other portions of the infrastructure SIP.

The Connecticut Department of Energy and Environmental Protection (DEEP) made public notice of proposed revisions to its infrastructure SIP on June 29, 2018. In the proposal, DEEP stated that it would address the good neighbor SIP revision for the 2015 ozone NAAQS separately, and does so in this document. These SIP revisions are due to EPA by October 1, 2018.

On March 27, 2018, EPA released a memo and supplemental information to assist states in the development of good neighbor SIPs.¹ DEEP shows that, following the guidance contained in EPA’s memo, Connecticut satisfies the good neighbor provision.²

Evaluation of Significant Contribution following EPA Guidance

EPA’s March 27, 2018 memorandum established an expanded four-step interstate transport framework for evaluating if a state significantly contributes to nonattainment in a downwind state. This four-step process is as follows:

- (1) identify downwind air quality problems;
- (2) identify the upwind states that “contribute enough” to those problems;
- (3) identify emission reductions necessary (if any), considering cost and air quality factors, to prevent the state from contributing significantly to another state’s air quality problems; and
- (4) adopt permanent and enforceable measures needed to achieve those reductions.

EPA recommends using modeled projected ozone contributions for the year 2023. EPA provides results of this modeling showing each state’s contribution to nonattainment receptors.³ EPA has generally considered that an upwind state “contributes enough” or is linked to nonattainment or maintenance receptors if the upwind state’s contribution to the receptor is greater than one percent of the standard, in this case 0.70 ozone parts per billion. Table 1 below shows EPA’s 2023 model results for receptors where Connecticut’s contribution was projected to meet or exceed the one percent level.⁴ Those values highlighted in green are the projected design values which do not exceed the standard. If the average projected design value exceeds the standard it is considered nonattainment. If the maximum design value

¹ [Memo from Peter Tsirigotis / EPA dated March 27, 2018, “Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110\(a\)\(2\)\(D\)\(i\)\(I\)”](#).

² DEEP has expressed its concerns – most recently in [comments on the CSAPR Close-out Rule](#) – that the procedures on which this guidance are based are insufficient to remedy transport. Connecticut nevertheless uses this guidance for lack of adequate alternate guidance.

³ <https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015-0>

⁴ In guidance released August 31, 2018, EPA considers a 1 ppb threshold (rather than 1 percent) acceptable for determining if a state contributes enough to be linked to a downwind state’s nonattainment receptor. As Connecticut contributes less than 1 ppb to the nonattainment and maintenance receptors in EPA’s 2023 modeling, we could here conclude that Connecticut satisfies its good neighbor requirements.

exceeds the standard it is considered a “maintenance” receptor in danger of exceeding the standard. The results indicate that Connecticut contributes to only one nonattainment receptor – Suffolk, New York.

Table 1. Modeled receptor locations where Connecticut contributes greater than one percent of the standard to the average or maximum projected 2023 design value. Also shown are the contribution due to the State in which the receptor is located.

State	County	2023 Average DV (ozone ppb)	2023 Maximum DV (ozone ppb)	In-State Contribution (ozone ppb)	CT Contribution (ozone ppb)
Rhode Island	Kent	60.4	60.7	0.65	5.83
Massachusetts	Hampden	59.3	59.5	2.74	5.06
Rhode Island	Providence	59.5	61.1	2.93	4.3
Rhode Island	Washington	62.6	64.0	11.8	3.94
New York	Suffolk	65.2	66.9	16.44	3.04
Massachusetts	Bristol	61.2	61.2	1.48	2.98
Massachusetts	Dukes	64.1	66.6	10.54	2.46
New York	Putnam	58.4	59.2	13.86	1.91
New York	Dutchess	58.6	60.2	13.3	1.9
New York	Westchester	63.8	64.4	14.79	1.82
Massachusetts	Essex	58.4	58.4	9.87	1.75
Massachusetts	Essex	56.2	56.8	8.73	1.65
Massachusetts	Suffolk	50.1	50.4	8.65	1.57
New York	Suffolk	67.6	68.7	16.75	1.51
Massachusetts	Barnstable	60.5	62.2	20.5	1.44
New York	Rockland	62.0	62.8	9.6	1.29
Massachusetts	Essex	57.2	57.2	10.8	1.18
New Jersey	Passaic	61.3	62.7	11.62	1.18
Maine	York	59.6	60.7	1.08	1.06
New York	Orange	55.3	56.9	11.46	1.05
Massachusetts	Suffolk	55.5	56.9	19.11	0.98
New York	Suffolk	74.0	75.5	18.11	0.83

The next step in EPA’s process (step 3) is to evaluate the necessary reductions. In this step, EPA had considered cost-effective only reductions that are available at a cost of less than of \$1,400 per ton of emissions reduced. Connecticut’s emitters are currently required to adopt control measures at costs exceeding \$13,000 per ton.⁵ Due to Connecticut’s long history of reducing ozone precursor emissions, it has exhausted lower cost emission reduction measures.⁶

Conclusion

Having shown that emission reduction costs in Connecticut currently exceed the maximum acceptable threshold for emissions reductions by EPA, Connecticut has shown that, at step 3, Connecticut satisfies

⁵ Regulations of Connecticut State Agencies section 22a-174-22e(h).

⁶ These control measures are documented in Connecticut’s most recent [ozone attainment plan technical support documents](#) for the 2008 standard submitted to EPA in 2017.

EPA requirements for a satisfactory good neighbor SIP for the 2015 ozone NAAQS. Any outstanding good neighbor requirements for the less stringent 2008 ozone NAAQS are therefore equally satisfied.

Enclosure B
Public Notice



Notice of Proposed State Implementation Plan for Air Quality

The Commissioner of the Department of Energy and Environmental Protection (DEEP) hereby gives notice of intent to revise the State Implementation Plan (SIP) to comply with the Environmental Protection Agency's guidance for fulfilling requirements under section 110(A)(2)(D)(i)(I) of the Clean Air Act (CAA), also known as the Good Neighbor Provision, for the 2015 National Ambient Air Quality Standards for Ozone.

The authority to adopt this SIP revision is granted by section 22a-174 of the Connecticut General Statutes (CGS). This notice is required pursuant to 40 Code of the Federal Regulations 51.102.

A copy of the proposed SIP revision is available for public inspection during normal business hours at DEEP's Bureau of Air Management, Planning and Standards Division 5th Floor, 79 Elm Street, Hartford, CT and may be reviewed by contacting Kathleen Knight at 860-424-3823. The SIP Revision is also available at the link below.

All interested persons are invited to comment on the proposed SIP revision. Comments should be submitted via electronic mail to kathleen.knight@ct.gov or via postal carrier to Kathleen Knight at the DEEP, Bureau of Air Management, 5th Floor, 79 Elm Street, Hartford, CT 06106-4064. All comments should be received by 4:30 PM on October 18, 2018.

In accordance with 40 CFR 51.102, DEEP will hold a hearing at the time and location set out below **only if a request for such a hearing is made on or before October 12, 2018 at 4:30 PM.**

PUBLIC HEARING
October 18, 2018 at 9:00 AM
Department of Energy and Environmental Protection, Holcombe Room, 5th Floor
79 Elm Street
Hartford, CT 06106

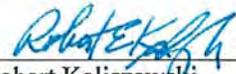
A request to hold the hearing identified above may be made by any person by electronic mail to kathleen.knight@ct.gov or by telephone (860-424-3823). Such a request must be made by 4:30 PM on October 12, 2018. If no request for a hearing is received on or before that date, the hearing will be cancelled. Information on the status of the hearing will be posted on DEEP's website at http://www.ct.gov/deep/cwp/browse.asp?a=2586&deepNav_GID=1511 as of October 15, 2018. Questions concerning the public hearing may be directed to kathleen.knight@ct.gov or (860-424-3823).

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action and Equal Opportunity Employer that is committed to complying with the Americans with Disabilities Act. To request an accommodation contact us at (860) 418-5910 or deep.accommodations@ct.gov

[Proposed Connecticut Good Neighbor State Implementation Plan for the 2015 Ozone NAAQS](#)

Date

September 14, 2018


Robert Kaliszewski
Deputy Commissioner



Enclosure C

CERTIFICATION OF PUBLIC REVIEW PROCESS

This certifies in accordance with the provisions of Title 40 Code of Federal Regulations Part 51.102 the following actions were taken by the Connecticut Department of Energy and Environmental Protection (DEEP) regarding revisions to the Connecticut State Implementation Plan (SIP) for air quality. Specifically, actions taken to address the requirements of the Clean Air Act (CAA) Section 110(a)(2)(D)(i)(I), the Good Neighbor provisions, for the 2015 Ozone National Ambient Air Quality Standard (NAAQS).

- 1) DEEP published the public notice for this SIP revision on September 14, 2018. Within this notice the opportunity for a public hearing was provided. The hearing was scheduled to be held October 18, 2018 if requested. No hearing was requested.
- 2) The record remained open for receipt of written comments through October 18, 2018.
- 3) In accordance with the notice, materials were available for review on DEEP's website and at DEEP Headquarters in Hartford, CT from September 14, 2018 through October 18, 2018.
- 4) On September 14, 2018, the notice was emailed to the directors of air pollution control agencies of New York, New Jersey, Rhode Island and Massachusetts, as well as Region I of the Environmental Protection Agency.
- 5) The public notice and links to the proposed SIP revisions document were published on DEEP's Public Notice Page (http://www.ct.gov/deep/cwp/browse.asp?a=2586&deepNav_GID=1511) on September 14, 2018.

11/26/18
Date

Kathleen Knight
Hearing Officer
Bureau of Air Management
Department of Energy and
Environmental Protection

Enclosure D

Response to Comments

Prepared Pursuant to
Code of Federal Regulations Part 40, Section 51.102

Regarding Revision to the
State Implementation Plan for Air Quality

Hearing Officer: Kathleen Knight *KK 11/28/18*

On Friday, September 14th 2018, the Commissioner of the Department of Energy and Environmental Protection (DEEP) published a notice of intent to amend the State Implementation Plan (SIP) for Air Quality to address the requirements under Clean Air Act (CAA) Section 110(a)(2)(D)(i) for the 2015 Ozone National Ambient Air Quality Standard (NAAQS). A public hearing was scheduled for October 18, 2018 if requested by October 12, 2018. The hearing was cancelled on October 15, 2018 due to the lack of a request. The comment period remained open until October 18, 2018. The notice was posted on DEEP's webpage for [proposed actions](#) from September 14, 2018 through October 22, 2018. This document is required by 40 Code of Federal Regulations (CFR) appendix V.

I. Content

This report describes the proposal, includes the comments submitted during the notice period described above, and includes the responses and/or revisions made to the proposal as a result of these comments.

II. Summary of the Proposed SIP Revision

CAA Section 110(a) requires every state to submit a SIP revision within three years of the promulgation of a new standard that provides for the implementation, enforcement and maintenance of the newly promulgated standard. More specifically, section 110(a)(2)(D)(i) of the CAA requires that this SIP revision contain adequate provisions to prohibit the emissions emitting from within the state contributing significantly to nonattainment or interfering with maintenance of any other state, hereafter known as the Good Neighbor provisions.

The proposed revision demonstrates Connecticut's compliance with the Good Neighbor provisions through the use of the four-step frame work established by EPA.

III. Comments and Responses

DEEP received one set of written comments from the Environmental Protection Agency's (EPA's) Region 1 office. The comments and DEEP's responses are included below. Where the response results in change to the proposed document changes are indicated as follows: underlined text indicates insertions and ~~strike through text~~ indicates deletions.

Comment 1:

In the Introduction, we suggest this revision: "These implementation plans are known as infrastructure SIPs and include the requirement, under CAA section 110 (a)(2)(D)(i), to prohibit emissions from within the state from contributing significantly to nonattainment or interfering with maintenance of a NAAQS in any other state."

Response:

DEEP understands that EPA chooses to distinguish the terms. The revision is accepted as indicated below.

Revised as below:

These implementation plans are known as infrastructure SIPs and include the requirement, under CAA section 110(a)(2)(D)(i), to prohibit emissions from within the state from contributing significantly to nonattainment or interfering with the ~~attainment~~ or maintenance of a NAAQS in any other state.

Comment 2:

Under "Evaluation of Significant Contribution following EPA Guidance," we suggest that you revise two sentences as follows:

"EPA's March 27, 2018 memorandum described the same four-step interstate transport framework that had developed through several previous federal rulemakings. This four-step framework is as follows: ..."

"EPA has generally considered that an upwind state "contributes enough" or is linked to nonattainment or maintenance receptors in a downwind state if the upwind state's contribution to the receptor is greater than one percent of the standard, in this case 0.70 ozone parts per billion."

Response:

DEEP has made a revision to clarify. However, Connecticut disagrees that the March 27, 2018 memo is the same framework that has been established through the various renditions of transport rules and court cases. There are key differences in this memo that undermine the intent of the Good Neighbor provisions and inhibit the ability to enforce equitable accountability for the pollution being transported and impacting public health across state boundaries. Therefore, the revision is not taken verbatim from EPA's suggestion.

Revised as below:

EPA's March 27, 2018 ~~guidance established~~ memorandum established an expanded four-step interstate transport framework process for evaluating if a state significantly contributes to nonattainment in a downwind state.

EPA has generally considered that an upwind state "contributes enough" or is linked to ~~another state's~~ nonattainment or maintenance receptors if the upwind state's ~~its~~ contribution to the receptor is greater than one percent of the standard, in this case 0.70 ozone parts per billion.

Comment 3:

A footnote identifies the August 31, 2018 "thresholds memorandum." EPA recommends deleting this footnote and including the following language in the body of the SIP submission:

"EPA has historically used a threshold equivalent to one percent of the NAAQS as a means of identifying upwind states that are "linked" to downwind receptors with regard to prior ozone standards. However, on August 31, 2018, EPA released a memorandum for the 2015 ozone NAAQS regarding the degree to which several air-quality thresholds capture the collective amount of upwind contribution to downwind receptors. EPA evaluated three contribution thresholds: 1% of the NAAQS (0.70 ppb), 1 ppb, and 2 ppb. Based on the results of this evaluation, EPA believes that a threshold of 1 ppb may be appropriate for states to use to develop SIP revisions addressing the Good Neighbor provisions for the 2015 ozone NAAQS. Based on the contribution modeling conducted by EPA, Connecticut is not linked to any nonattainment or maintenance receptors using the 1 ppb screening threshold."

Response:

DEEP prefers the more conservative approach of using EPA's original one percent threshold for establishing linkage. DEEP notes that EPA policy continues to evolve with respect to the recent flexibilities within various memorandums issued, most recently on October 19, 2018. DEEP is concerned that the EPA's evolving position leads to inconsistency which may void a less conservative method.

Additionally, EPA has not evaluated the cumulative effect of the higher threshold. In fact, this only utilizes one-step of the four-step process and potentially eliminates the consideration of much more cost effective measures. Therefore, DEEP retains original language from the proposed SIP.

Comment 4:

EPA recommends revising Table 1 to focus on the 1 ppb threshold.

Response:

Consistent with the response to the previous comment the table remains as proposed.

Comment 5:

The paragraph that follows Table 1, contains a statement regarding the cost of emissions reductions that is inaccurate. In the CSAPR Update, EPA considered cost-effective those reductions that could be feasibly implemented. The amount of \$1,400 defines cost-effectiveness, not feasibility; feasibility is defined based on the timeframe. Therefore, we suggest the following revision:

"In this step, for the 2008 ozone NAAQS in the CSAPR Update, EPA considered reductions available at a cost of less than \$1,400 per-ton-emissions-reduced to be cost-effective compared to other control strategies that were feasible to implement by the 2017 ozone season."

Response:

DEEP has substituted "cost-effective" for "feasibility". Regardless of the choice of words, actual cost for compliance with EPA's CSAPR-Update can be had at less than \$300 per ton with the purchases of allowances. This is in no way equitable to Connecticut's monetary or environmental costs.

Revised as below:

In this step, EPA had considered ~~feasible~~ cost-effective only reductions that are available at a cost of less than of \$1,400 per ton of emissions reduced.

Comment:

On the last page, you may choose to keep the sentences related to the step 3 analysis. However, they are not necessary because the state is below the 1 ppb ozone contribution threshold.

Response:

DEEP chooses to retain the proposed language pertaining to the step 3 analysis.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
Boston, MA 02109-3912

October 15, 2018

Kathleen Knight
Department of Energy and Environmental Protection
Bureau of Air Management, 5th Floor
79 Elm Street
Hartford, CT 06106-4064

Dear Ms. Knight:

On September 14, 2018, Connecticut Department of Energy and Environmental Protection (CT DEEP) posted for comments its proposed SIP submittal entitled "Connecticut Good Neighbor SIP for the 2015 Ozone NAAQS" (i.e., 2015 Ozone Transport SIP). This SIP addresses Clean Air Act Section 110(a)(2)(D)(i)(I) – Significant contribution to nonattainment (prong 1) and interference with maintenance of the NAAQS (prong 2) in downwind states (also called "Infrastructure SIP Element (D)1"). Comments on the proposed SIP are due by October 18, 2018.

We have reviewed your proposed 2015 Ozone Transport SIP and our comments are in the attached Enclosure.

If you have any questions, please contact Alison Simcox at 617-918-1684 or simcox.alison@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ariel Garcia".

Ariel Garcia, Acting Manager
Air Quality Planning Unit

Enclosure

cc: Ric Pirolli, CT DEEP
Paul Farrell, CT DEEP
Kiernan Wholean, CT DEEP

Enclosure

**EPA's Comments on Connecticut's proposed Transport SIP for addressing
CAA section 110(a)(2)(D)(i)(I) for the 2015 Ozone NAAQS**

1. In the Introduction, we suggest this revision: "These implementation plans are known as infrastructure SIPs and include the requirement, under CAA section 110(a)(2)(D)(i), to prohibit emissions from within the state from contributing significantly to nonattainment or interfering with maintenance of a NAAQS in any other state."
2. Under "Evaluation of Significant Contribution following EPA Guidance," we suggest that you revise two sentences as follows:

"EPA's March 27, 2018 memorandum described the same four-step interstate transport framework that had developed through several previous federal rulemakings. This four-step framework is as follows: ..."

"EPA has generally considered that an upwind state "contributes enough" or is linked to nonattainment or maintenance receptors in a downwind state if the upwind state's contribution to the receptor is greater than one percent of the standard, in this case 0.70 ozone parts per billion."
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"EPA has historically used a threshold equivalent to one percent of the NAAQS as a means of identifying upwind states that are "linked" to downwind receptors with regard to prior ozone standards. However, on August 31, 2018, EPA released a memorandum for the 2015 ozone NAAQS regarding the degree to which several air-quality thresholds capture the collective amount of upwind contribution to downwind receptors. EPA evaluated three contribution thresholds: 1% of the NAAQS (0.70 ppb), 1 ppb, and 2 ppb. Based on the results of this evaluation, EPA believes that a threshold of 1 ppb may be appropriate for states to use to develop SIP revisions addressing the Good Neighbor provisions for the 2015 ozone NAAQS. Based on the contribution modeling conducted by EPA, Connecticut is not linked to any nonattainment or maintenance receptors using the 1 ppb screening threshold."
4. EPA recommends revising Table 1 to focus on the 1 ppb threshold.
5. The paragraph that follows Table 1, contains a statement regarding the cost of emissions reductions that is inaccurate. In the CSAPR Update, EPA considered cost-effective those reductions that could be feasibly implemented. The amount of \$1,400 defines cost-effectiveness, not feasibility; feasibility is defined based on the timeframe. Therefore, we suggest the following revision: "In this step, for the 2008 ozone NAAQS in the CSAPR Update, EPA considered reductions available at a cost of less than \$1,400 per-ton-emissions-reduced to be cost-effective compared to other control strategies that were feasible to implement by the 2017 ozone season."
6. On the last page, you may choose to keep the sentences related to the step 3 analysis. However, they are not necessary because the state is below the 1 ppb ozone contribution threshold.