6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R01-OAR-2025-0240; FRL-12861-01-R1]

Air Plan Approval; Connecticut; 2014 and 2017 Periodic Emissions Inventory for 2008 8-Hour Ozone NAAQS

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve State Implementation Plan (SIP) revisions submitted by the State of Connecticut. These SIP revisions relate to the 2008 8-Hour ozone National Ambient Air Quality Standards (NAAQS). The SIP revisions consist of the following: 2014 and 2017 calendar year periodic emissions inventories. This action is being taken under the Clean Air Act.

DATES: Written comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R01-OAR-2025-0240 at *https://www.regulations.gov*, or via email to lillis.patrick@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please

contact the person identified in the "For Further Information Contact" section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*. Publicly available docket materials are available at *https://www.regulations.gov* or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Air and Radiation Division, 5 Post Office Square – Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection.

FOR FURTHER INFORMATION CONTACT: Patrick Lillis, Air and Radiation Division (Mail Code 5-MI), U.S. Environmental Protection Agency - Region 1, 5 Post Office Square, Suite 100, Boston, Massachusetts, 02109-3912; tel. (617)-918-1067, or by email at lillis.patrick@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever ''we,'' ''us,'' or ''our'' is used, we mean EPA.

Table of Contents

I. Background

Ozone is a gas that is formed by the reaction of Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NOx) in the atmosphere in the presence of sunlight. Therefore, an emission inventory for ozone focuses on the emissions of VOC and NOx, referred to as ozone precursors. These precursors (VOC and NOx) are emitted by many types of pollution sources, including point sources such as power plants and industrial emissions sources; on-road and off-road mobile

sources (motor vehicles and engines); and smaller residential and commercial sources, such as dry cleaners, auto body shops, and household paints, collectively referred to as nonpoint sources (also called area sources).

An emission inventory of ozone is an estimation of actual emissions of air pollutants that contribute to the formation of ozone in an area. The emissions inventory provides emissions data for a variety of air quality planning tasks, including establishing baseline emission levels for calculating emission reduction targets needed to attain the NAAQS, determining emission inputs for ozone air quality modeling analyses, and tracking emissions over time to determine progress toward meeting Reasonable Further Progress (RFP) requirements.

A. The 2008 Ozone NAAQS

On March 12, 2008, the EPA revised both the primary and secondary NAAQS[1] for ozone to a level of 0.075 parts per million (ppm) to provide increased protection of public health and the environment. (*See* 73 FR 16436, March 27, 2008). The 2008 ozone NAAQS retains the same general form and averaging time as the 0.08 ppm NAAQS set in 1997 but is set at a more protective level. Under the EPA's regulations, the 2008 8-hour ozone NAAQS is attained when the 3-year average of the annual fourth highest daily maximum 8-hour average ambient air quality ozone concentrations is less than or equal to 0.075 ppm.[2]

Effective July 20, 2012, the EPA designated as nonattainment any area that was violating the 2008 8-hour ozone NAAQS based on the three most recent years (2008-2010) of air monitoring data.[3] With that rulemaking, the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT areas were designated as marginal ozone nonattainment areas. Areas that were designated as marginal nonattainment were required to

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[1] The primary ozone standards provide protection for children, older adults, and people with asthma or other lung diseases, and other at-risk populations against an array of adverse health effects that include reduced lung function, increased respiratory symptoms and pulmonary inflammation; effects that contribute to emergency department visits or hospital admissions; and mortality. The secondary ozone standards protect against adverse effects to the public welfare, including those related to impacts on sensitive vegetation and forested ecosystems.

[2] For a detailed explanation of the calculation of the 3-year 8-hour average, *see* 40 CFR part 50, appendix P.

[3] *See* 77 FR 30088, May 21, 2012.

attain the 2008 8-hour ozone NAAQS no later than July 20, 2015, based on 2012-2014 monitoring data. Any state in which a marginal nonattainment area is located is required to submit certain SIP elements to the EPA in accordance with section 182(a) of the CAA.

B. *Statutory and Regulatory Emission Inventory Requirements*

CAA sections 182(a)(1) and 182(a)(3)(A) require submission of base year and periodic emissions inventories, respectively, for each ozone nonattainment area.[4] States are required to submit a periodic inventory of emissions sources in the nonattainment areas to meet the requirements of CAA § 182 (a)(3)(A), as specified in the Air Emissions Reporting Requirements (AERR) at 40 CFR part 51, subpart A. Each periodic inventory shall be submitted no later than the end of each 3-year period after the required submission of the base year inventory for the nonattainment area and this requirement shall apply until the area is redesignated to attainment.[5] The emissions value included in the inventories shall be actual ozone season day emissions as defined by § 51.1100(cc).[6] These requirements allow the EPA, based on the states' progress in reducing emissions, to reassess its policies and air quality standards periodically and revise them as necessary. Most important, these inventories will be used to develop and assess new control strategies that states may use in attainment demonstration SIPs for ozone or other pollutants. The inventory may also serve as part of statewide inventories for purposes of regional modeling in transport areas, where the inventory plays an important role in modeling demonstrations for areas classified as nonattainment and outside transport regions.

II. State's Submittal

CAA Sections 182(a)(3) and 172(c)(3) require the periodic submission of emissions inventories for the SIP planning process to address SIP requirements applicable to ozone

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[4] "For each nonattainment area, the state shall submit a base year inventory as defined by § 51.1100(bb) to meet the emissions inventory requirement of CAA section 182(a)(1). This inventory shall be submitted no later than 24 months after the effective date of designation. The inventory year shall be selected consistent with the baseline year for the RFP plan as required by § 51.1110(b)." (40 CFR 51.115(a)).

[5] CAA § 182(a)(3)(A); 40 CFR 51.1115(b).

[6] 40 CFR 51.1115(c); *see also* Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements, 80 FR 12264 (March 6, 2015).

nonattainment areas in each classification category. The Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT areas were both originally designated marginal nonattainment for the 2008 ozone NAAQS; initiating a two-year deadline to submit a base year emissions inventory, followed by a periodic emissions inventory every 3-years until the nonattainment areas attain the standard.[7] EPA approved Connecticut's Department of Energy and Environmental Protection (CT DEEP) base year emissions inventory revisions SIP for the 2008 ozone NAAQS on October 1, 2018.[8]

On May 3, 2024, CT DEEP submitted SIP revisions that included the 2014 and 2017 periodic emissions inventories for the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT ozone nonattainment areas. CT DEEP submitted the inventory to meet the CAA section 182(a)(3)(A) obligation to develop a periodic emission inventory every 3-years after the base year inventory until the nonattainment areas are designated as attainment for the NAAQS. The State conducted a public comment period with a public hearing, and the State did not receive any comment during the comment period or the hearing.

Both the 2014 and 2017 periodic emissions inventories include annual and ozone season daily emissions for ozone precursors (NO_X, VOC, and CO) from all source categories (point, nonpoint, on-road and nonroad mobile sources, and biogenic emissions) in both the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas.

III. EPA's Evaluation

A. 2014 Periodic Emissions Inventory

EPA has reviewed Connecticut's 2014 periodic emissions inventory for consistency with the CAA and regulatory periodic emissions inventory requirements. Forty CFR 51.1115(b) provides that for each nonattainment area, the state shall submit a periodic emission inventory of

[7] *See* 77 FR 30088, May 21, 2012.
[8] *See* 83 FR 49297, October 1, 2018.

emissions sources in the area to meet the requirement in CAA section 182(a)(3)(A). Connecticut meets this requirement through CT DEEP's submittal of a 2014 periodic emission inventory on May 3, 2024, that included both nonattainment areas that are violating the 2008 ozone NAAQS.[9] A copy of CT DEEP's 2014 periodic emission inventory is located in the docket of this proposed rulemaking. Forty CFR 51.1115(c) states that the emissions values included in periodic inventories shall be actual ozone season day emissions as defined by § 51.1100(cc). Connecticut's submittal includes actual ozone season day emissions for ozone precursors in both nonattainment areas.[10] EPA's AERR outlines emissions thresholds for point sources that states must report in their periodic emission inventories.[11] CT DEEP's submittal includes point source emissions that meet or exceed the emission thresholds as defined in the AERR.[12] Furthermore, CT DEEP satisfies any additional requirements of the AERR as defined in 40 CFR 51.1115(e) and in EPA 2017 emissions inventory guidance[13] within their 2014 periodic emissions inventory submittal.[14]

EPA also reviewed the techniques used by CT DEEP to derive and quality assure the emission estimates used in preparing the 2014 periodic emission inventory. EPA found that CT DEEP followed EPA's 2017 Emissions Inventory guidance[15] when developing their statewide 2014 periodic emission inventory. Connecticut documented the procedures used to estimate the emissions for each of the major inventory source types as well as CT DEEP's Quality assurance (QA) and Quality Control (QC) checks to ensure 2014 emissions data are accurate.[16] The documentation of the emission estimation procedures was adequate for EPA to determine that Connecticut followed acceptable procedures to estimate emissions. Specifically, QA/QC checks

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[9] *See* State of Connecticut State SIP Revision Cover Letter.
[10] *See* CT DEEP's 2014 Emission Inventory Submittal, 1-13 – 1-15.
[11] *See* 40 CFR part 51, subpart A, appendix A.
[12] *See* CT DEEP's 2014 Emission Inventory Submittal, Section 2.
[13] *See* Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations, May 2017, Section 3.5.1 (hereinafter, "EPA Emissions Inventory Guidance").
[14] *See* CT DEEP's 2014 Emission Inventory Submittal.
[15] *See* EPA Emissions Inventory Guidance, Section 3.5.
[16] *See* CT DEEP's 2014 Emission Inventory Submittal, Sections 2.4, 2.4.3, and 6

were performed relative to data collection and analysis and to double counting of emissions from point, area, and mobile sources. CT DEEP performed QA/QC to ensure accuracy of units, unit conversions, transposition of figures, and calculations. For more information on CT DEEP's QA/QC procedures while developing their 2014 emissions inventory, a copy of their submittal is located in the docket of this proposed rulemaking.[17]

Connecticut's 2014 periodic emissions inventory includes annual and ozone season daily emissions for ozone precursors (NO_X, VOC, and CO) from all source categories (point, nonpoint, on-road and non-road mobile sources, and biogenic emissions) in both the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas. These emission estimates are outlined in tables 1-4 below.

Table 1 - 2014 Annual Emissions (TPY) of Ozone Precursor Compounds in the Greater Connecticut Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	400	2,628	1,096
On-Road Mobile Sources	8,662	14,903	89,134
Non-Road Mobile Sources	4,821	5,625	50,958
Area Sources	23,843	5,861	26,252
Biogenic Sources	39,519	402	4,584
Total of All Sources	77,245	29,418	172,025

Table 2 - 2014 Summer Day Emissions (Tons/Day) of Ozone Precursor Compounds in the Greater Connecticut Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	14.2	21.4	4.7
On-Road Mobile Sources	24.4	41.4	276.0
Non-Road Mobile Sources	29.5	32.1	368.8
Area Sources	67.6	7.1	13.1
Biogenic Sources	286.9	1.7	28.3

[17] *See id.*

Total of All Sources	409.7	103.7	691.0

Table 3 - 2014 Annual Emissions (TPY) of Ozone Precursor Compounds in the Connecticut Portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	560	3,471	770
On-Road Mobile Sources	9,709	16,784	100,642
Non-Road Mobile Sources	5,703	7,215	72,076
Area Sources	24,369	6,880	17,838
Biogenic Sources	21,127	175	2,319
Total of All Sources	61,468	34,525	193,645

Table 4 - 2014 Summer Day Emissions (Tons/Day) of Ozone Precursor Compounds in the Connecticut Portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	2.0	17.1	4.4
On-Road Mobile Sources	27.2	46.1	313.0
Non-Road Mobile Sources	34.7	41.6	546.5
Area Sources	72.7	8.5	14.6
Biogenic Sources	156.2	0.8	14.3
Total of All Sources	292.8	114.0	892.8

B. 2017 Periodic Emissions Inventory

EPA has reviewed Connecticut's 2017 periodic emissions inventory for consistency with the CAA and regulatory periodic emissions inventory requirements. Forty CFR 51.1115(b) provides that for each nonattainment area, the state shall submit a periodic emission inventory of emissions sources in the area to meet the requirement in CAA section 182(a)(3)(A). Connecticut meets this requirement through CT DEEP's submittal of a 2017 periodic emission inventory on

May 3, 2024, that included both the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas.[18] A copy of CT DEEP's 2017 periodic emission inventory is located in the docket of this proposed rulemaking. Forty CFR 51.1115(c) states that the emissions values included in periodic inventories shall be actual ozone season day emissions as defined by § 51.1100(cc). Connecticut's submittal includes actual ozone season day emissions for ozone precursors in both nonattainment areas.[19] EPA's AERR outlines emissions thresholds for point sources that states must report in their periodic emission inventories.[20] CT DEEP's submittal includes point source emissions that meet or exceed the emission thresholds in the AERR.[21] Furthermore, CT DEEP satisfies any additional requirements of the AERR as defined in 40 CFR 51.1115(e) and in EPA 2017 emissions inventory guidance[22] within their 2017 periodic emissions inventory submittal.

EPA also reviewed the techniques used by CT DEEP to derive and quality assure the emission estimates used in preparing the 2017 periodic emission inventory. EPA found that CT DEEP followed EPA's 2017 Emissions Inventory guidance[23] when developing their statewide 2017 periodic emission inventory. Connecticut documented the procedures used to estimate the emissions for each of the major inventory source types as well as CT DEEP's Quality assurance (QA) and Quality Control (QC) checks to ensure 2017 emissions data are accurate.[24] The documentation of the emission estimation procedures was adequate for EPA to determine that Connecticut followed acceptable procedures to estimate emissions. Specifically, QA/QC checks were performed relative to data collection and analysis and to double counting of emissions from point, area, and mobile sources. CT DEEP performed QA/QC to ensure accuracy of units, unit conversions, transposition of figures, and calculations. For more information on CT DEEP's

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[18] *See* State of Connecticut State SIP Revision Cover Letter.
[19] *See* CT DEEP's 2017 Emission Inventory Submittal, 1-13 – 1-15.
[20] *See* 40 CFR part 51, subpart A, appendix A.
[21] *See* CT DEEP's 2017 Emission Inventory Submittal, Section 2.
[22] *See* EPA Emissions Inventory Guidance, Section 3.5.1.
[23] *See id.* Section 3.5.
[24] *See* CT DEEP's 2017 Emission Inventory Submittal, Section 2.4, 2.4.3, and 6.

QA/QC procedures while developing their 2017 emissions inventory, a copy of their submittal is located in the docket of this proposed rulemaking.[25]

Connecticut's 2017 periodic emissions inventory includes annual and ozone season daily emissions for ozone precursors (NO_X, VOC, and CO) from all source categories (point, nonpoint, on-road and non-road mobile sources, and biogenic emissions) in both the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas. These emission estimates are outlined in tables 5-8 below.

Table 5 - 2017 Annual Emissions (TPY) of Ozone Precursor Compounds in the Greater Connecticut Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	382	2,197	938
On-Road Mobile Sources	6,434	8,115	70,956
Non-Road Mobile Sources	3,959	4,783	48,073
Area Sources	17,444	5,095	19,698
Biogenic Sources	43,387	404	4,393
Total of All Sources	71,605	20,594	144,058

Table 6 - 2017 Summer Day Emissions (Tons/Day) of Ozone Precursor Compounds in the Greater Connecticut Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	1.1	10.2	3.9
On-Road Mobile Sources	18.1	22.2	223.9
Non-Road Mobile Sources	13.5	15.4	177.6
Area Sources	53.0	6.0	10.9
Biogenic Sources	308.8	1.7	25.9
Total of All Sources	394.5	55.6	442.2

[25] *See id.*

Table 7 - 2017 Annual Emissions (TPY) of Ozone Precursor Compounds in the Connecticut Portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	542	2,418	570
On-Road Mobile Sources	7,162	9,405	80,407
Non-Road Mobile Sources	4,789	5,767	68,371
Area Sources	17,049	5,856	15,534
Biogenic Sources	23,573	181	2,393
Total of All Sources	53,115	23,627	167,274

Table 8 - 2017 Summer Day Emissions (Tons/Day) of Ozone Precursor Compounds in the Connecticut Portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT Ozone Non-Attainment Area

Source Type	VOC	NOx	CO
Stationary Point Sources	3.6	14.0	4.7
On-Road Mobile Sources	20.0	25.5	256.0
Non-Road Mobile Sources	16.6	19.0	262.1
Area Sources	52.7	6.9	11.9
Biogenic Sources	168.3	0.8	14.1
Total of All Sources	261.3	66.2	548.8

IV. Proposed Action

Based on the EPA's review, the 2014 and 2017 periodic year emissions inventories submitted by the state of Connecticut for each ozone nonattainment area include essential data elements, source categories, sample calculations, and report documentation in accordance with CAA sections 182(a)(3)(A) requirements and were developed in accordance with EPA guidance.[26] Therefore, the EPA is proposing to approve both the 2014 and the 2017 periodic emissions

[26] *See* EPA Emissions Inventory Guidance.

inventories for the Greater Connecticut and the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT 2008 ozone nonattainment areas.

V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993);
- Is not subject to Executive Order 14192 (90 FR 9065, February 6, 2025) because SIP actions are exempt from review under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: June 23, 2025.

Mark Sanborn,
Regional Administrator,
EPA Region 1.

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