



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2022-0983; FRL-11757-01-R5]

**Air Plan Approval; Ohio; Moderate Attainment Plan Elements for
the Cleveland Area for the 2015 Ozone Standard**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the following portions of Ohio's State Implementation Plan (SIP) submission for the Cleveland 2015 ozone national ambient air quality standard (NAAQS or standard) Moderate nonattainment area: the base year emissions inventory, the reasonable further progress (RFP) demonstration, the motor vehicle inspection and maintenance (I/M) program, and the nonattainment new source review (NNSR) program. EPA is proposing to approve these portions of the State's submission as a SIP revision pursuant to section 110 and part D of the CAA and EPA's regulations. EPA is also initiating the adequacy process and proposing approval of the 2023 motor vehicle emissions budgets (budgets) associated with the Cleveland Moderate ozone nonattainment RFP demonstration.

DATES: 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-R05-OAR-2022-0983 at <https://www.regulations.gov>, or via

email to arra.sarah@epa.gov. For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at <https://www.regulations.gov> any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), 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. 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, PBI, or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Kathleen D'Agostino, Air and Radiation Division (AR18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-1767, dagostino.kathleen@epa.gov. The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. Background
- II. Evaluation of Ohio's Submittal
 - A. 2017 Base Year Emissions Inventory
 - B. 15% RFP Plan
 - C. Motor Vehicle Emission Budgets
 - D. Motor Vehicle Inspection and Maintenance (I/M) Program
 - E. NNSR Review
- III. Environmental Justice Considerations
- IV. Proposed Action
- V. Statutory and Executive Order Reviews

I. Background

On December 28, 2015, EPA promulgated a revised 8-hour ozone NAAQS of 0.070 parts per million (ppm).¹ Promulgation of a revised NAAQS triggers a requirement for EPA to designate all areas of the country as nonattainment, attainment, or unclassifiable for the NAAQS. For the ozone NAAQS, this also involves classifying any nonattainment areas at the time of designation.² Ozone nonattainment areas are classified based on the severity of their ozone levels as determined based on the area's "design value," which represents air quality in the area for the most recent 3 years. The classifications for ozone nonattainment areas are Marginal, Moderate, Serious, Severe, and Extreme.³

Areas that EPA designates nonattainment for the ozone NAAQS are subject to the general nonattainment area planning requirements of CAA section 172 and the ozone-specific planning

¹ 80 FR 65292, October 26, 2015, codified at 40 CFR 50.19.

² CAA sections 107(d)(1) and 181(a)(1).

³ CAA section 181(a)(1).

requirements of CAA section 182. Ozone nonattainment areas in the lower classification levels have fewer and/or less stringent mandatory air quality planning and control requirements than those in higher classifications. In EPA's December 6, 2018, rule, "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements," known as the "SIP Requirements Rule," EPA set forth nonattainment area requirements for the 2015 ozone NAAQS.⁴ These requirements are codified at 40 CFR part 51 subpart CC. For Marginal areas, a State is required to submit a baseline emissions inventory, adopt provisions into the SIP requiring emissions statements from stationary sources, and implement a NNSR program for the relevant ozone NAAQS.⁵ For Moderate areas, a State needs to comply with the Marginal area requirements, plus additional Moderate area requirements, including the requirement to submit a modeled demonstration that the area will attain the NAAQS as expeditiously as practicable but no later than 6 years after designation, the requirement to submit an RFP plan, the requirement to adopt and implement certain emissions controls, such as Reasonably Available Control Technology (RACT) and I/M, and the requirement for greater emissions offsets for new or modified major stationary sources under the State's NNSR program.⁶

Effective August 3, 2018, EPA designated the Cleveland area

⁴ 83 FR 62998, December 6, 2018.

⁵ CAA section 182(a).

⁶ CAA section 182(b).

as a Marginal nonattainment area for the 2015 ozone NAAQS.⁷ The Cleveland area includes Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties. On October 7, 2022, pursuant to section 181(b)(2) of the CAA, EPA determined that the Cleveland area failed to attain the 2015 ozone NAAQS by the August 3, 2021, Marginal area attainment deadline and thus reclassified the area from Marginal to Moderate nonattainment.⁸ In that action, EPA established January 1, 2023, as the due date for the State to submit all Moderate area nonattainment plan SIP requirements applicable to newly reclassified areas.

II. Evaluation of Ohio's Submittal

Ohio submitted a SIP revision on December 21, 2022, to address Moderate area requirements for the Cleveland area under the 2015 ozone NAAQS. The submittal contained a number of nonattainment plan elements, including a 2017 base year emissions inventory for volatile organic compounds (VOC) and oxides of nitrogen (NO_x), a 15% RFP plan with 2023 VOC and NO_x motor vehicle emissions budgets, an I/M program certification, and a NNSR certification, and each of these is covered in further detail below. The submission also included an attainment demonstration, a reasonably available control measures demonstration, and contingency measures, which will be addressed in a separate action. Ohio's SIP submission and associated supporting documents are available in the docket for this action, at <https://www.regulations.gov>, Docket ID No. EPA-

⁷ 83 FR 25776, June 4, 2018.

⁸ 87 FR 60897, October 7, 2022.

A. 2017 Base Year Emissions Inventory

1. Background

CAA sections 172(c)(3) and 182(a)(1), 42 U.S.C. 7502(c)(3) and 7511a(a)(1), require States to develop and submit, as SIP revisions, comprehensive, accurate, and complete emissions inventories for all areas designated as nonattainment for the ozone NAAQS. This requirement is codified at 40 CFR 51.1315, and the term "base year inventory" is defined at 51.1300(p). For ozone, the base year inventory is an estimation of actual emissions of VOC and NO_x from all sources within the boundaries of the nonattainment area.

The regulation at 40 CFR 51.1315(a) requires that the selected inventory year be consistent with the baseline year for the RFP plan as required by 40 CFR 51.1310(b), which states that the baseline emissions inventory shall be the emissions inventory for the most recent calendar year for which a complete triennial inventory is required to be submitted to EPA under the provisions of subpart A of 40 CFR part 51, Air Emissions Reporting Requirements, 40 CFR 51.1 through 50. For areas designated as nonattainment in 2018, the most recent triennial inventory year conducted for the National Emissions Inventory (NEI) pursuant to the Air Emissions Reporting Requirements (AERR) rule is 2017.⁹

Further, 40 CFR 51.1315(c) requires emissions values

⁹ 83 FR 62998 at 63005, December 6, 2018.

included in the base year inventory to be actual ozone season day emissions as defined by 40 CFR 51.1300(q), which states: "Ozone season day emissions means an average day's emissions for a typical ozone season work weekday. The State shall select, subject to EPA approval, the particular month(s) in the ozone season and the day(s) in the work week to be represented, considering the conditions assumed in the development of RFP plans and/or emissions budgets for transportation conformity."

On July 24, 2020, Ohio submitted a SIP revision addressing the emissions inventory requirement of CAA section 182(a)(1). At that time, the Cleveland nonattainment area was designated Marginal nonattainment and RFP was not required. Therefore, Ohio initially selected 2014 as the base year because it was one of the years used to designate the area as nonattainment for the 2015 ozone NAAQS and it was the most current comprehensive, accurate, and quality assured triennial emissions inventory in the NEI database available at the time the State began preparing the emissions inventory submittal for the Cleveland area. EPA approved Ohio's 2014 base year emissions inventory for the Cleveland area on March 3, 2021, 86 FR 12270.

The Cleveland area has since been reclassified to Moderate nonattainment, and RFP is now required. Therefore, consistent with the requirements set forth in the SIP requirements Rule, Ohio submitted a 2017 base year inventory to supersede the previously approved 2014 base year inventory.

2. Ohio's Emission Inventory Submittal

Ohio's 2017 base year emissions inventory submittal includes VOC and NO_x emissions estimates for the following source categories: point sources, nonpoint sources, onroad mobile sources, nonroad mobile sources, and biogenic sources. Onroad emissions estimates were developed using EPA's Motor Vehicle Emissions Simulator model (MOVES3), which was the latest model version at the time the inventory was developed. Ohio used annual emissions data contained from EPA's 2017gb emissions modeling platform, which is based on the 2017 NEI, to generate emissions estimates for the point, nonpoint, nonroad and biogenic source categories.¹⁰ The emissions collected from the 2017gb inventory were presented in terms of monthly or annual emissions.

Where monthly data were available, Ohio derived ozone season day emissions by dividing July emissions by the number of days in July. Where only annual data were available, Ohio derived ozone season day emissions by applying a conversion factor, by source type and pollutant, to the annual emissions. Ohio derived the conversion factors from EPA's 2017gb Air Emissions Modeling Platform.¹¹ Ohio selected July as representative of the ozone season as it is typically the warmest month and had the highest monthly emissions of NO_x and

¹⁰ Supporting documentation for the NEI is available on EPA's website at <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data?adlt=strict>. Supporting documentation for the 2017gb emissions modeling platform is available at <https://www.epa.gov/air-emissions-modeling/2017-emissions-modeling-platform>.

¹¹ "2017gb_hapcap_county_monthly_report_CAPs_PEC_POC_09apr2021" file available at <https://www.epa.gov/air-emissions-modeling/2017-emissions-modeling-platform> (select 2017 Data Files and Summaries, then reports, then the specific file).

VOC combined in the 2017gb modeling platform.

Ozone season day emissions as derived above include weekend days. Ohio determined that this is appropriate because ozone values measured on weekend days have a significant impact on the monitor design values in the Cleveland nonattainment area. Monitoring data from 2017 through 2022 show the Cleveland nonattainment area had between 5 and 7 days with one or more monitors recording values over the 2015 ozone standard each year, with up to 3 of those days in a year falling on a weekend. In addition, for each year from 2017 to 2022, between 5 and 18 of the 1st through 4th high values that contributed to the design value for a monitor occurred on a weekend day. As such, Ohio determined that it was appropriate to include weekend emissions in the calculation of ozone season day emissions.

Point Sources

The point source sector includes large, stationary sources whose emissions are usually well characterized, are generally discharged through stacks and which are required to possess an Ohio EPA issued permit. The point source inventory collected from the 2017gb emissions inventory platform was initially developed from Ohio EPA's online reporting database, STARS2, where facilities submit annual emissions reports. Ohio EPA requires annual emission reports for title V and synthetic minor facilities. After review and approval by Ohio EPA staff, the facility emissions were then formatted, through an EPA provided Microsoft Access tool, for annual submission to the Emission

Inventory System (EIS) Gateway to fulfill required reporting for the annual EIS. Initially, the point source inventory was submitted to the EIS Gateway in draft form to begin the Quality Assurance (QA) process.

The EIS Gateway QA environment performed a variety of checks on the point source inventory, including facility site geographic coordinates, duplicate facilities, release point diameter, and others. After the QA checks were performed, the EIS Gateway provided a feedback file with any errors that were encountered. These errors were addressed on a case-by-case basis, depending on the error. Some errors required collaboration with EPA such as correcting duplicate facilities. Once all critical errors were corrected, the emissions were submitted to the EIS Gateway in final form.

The final point source inventory is divided into two categories: electric generating units (EGUs) and non-EGUs. Ohio collected both EGU and non-EGU emissions from the 2017gb emissions modeling platform. These files provided annual data which Ohio converted to tons per ozone season day (tpd) using the conversion factors identified above.

Nonpoint Sources

Nonpoint sources, also referred to as "area" sources, are sources that fall below point source reporting levels or are too small or too numerous to be identified individually. The nonpoint inventory collected from the 2017gb emissions inventory platform was initially developed from a variety of State data

supplied to estimate emissions based on procedures and guidance supplied by EPA. State specific data was only used when Ohio was able to provide data that was considered to more accurately describe activity or emissions in Ohio compared to the default data. Where Ohio was unable to provide State specific data, EPA default data was used. EPA default data for nonpoint sources was developed by EPA with the help of the Nonpoint Method Advisory (NOMAD) committee. NOMAD is a group of inventory developers from a variety of State and local agencies that collaborate on the development of methodologies to aid EPA in the development of default data for the NEI. In order to provide the most accurate and complete nonpoint inventory possible, Ohio implemented quality control and quality assurance measures throughout the development of this inventory. Additionally, Ohio followed inventory preparation procedures in guidance documents provided by EPA and NOMAD. The quality control and quality assurance of nonpoint data was primarily an ad-hoc process led by EPA. This process included comparing 2017 estimates to previous NEI cycles, gap-filling for missing pollutants, and evaluating outliers.

Ohio estimated the oil and gas nonpoint category using well counts for conventional and unconventional wells, production data, and well site configuration data obtained from the Ohio Department of Natural Resources Division of Oil and Gas Resource Management. Ohio processed the data through a Microsoft Access tool provided by EPA to estimate emissions. The tool was used

only to estimate emissions from upstream activities since mid and downstream operations are accounted for in Ohio's point inventory. Since operating conditions were different for conventional and unconventional wells, the tool was run twice; once for conventional wells using EPA default data, and then run again with adjustments for well configuration in the tool for unconventional wells.

For industrial, commercial, and institutional (ICI) fuel combustion, solvents, gas distribution, and publicly owned treatment works (POTW), Ohio used point source subtraction. This means either nonpoint activity data or emissions were adjusted to account for activity data or emissions that had already been reported in the point source inventory. This process was guided by the Point to Nonpoint Crosswalk which was provided by EPA. This crosswalk describes the similarities between point SCCs and nonpoint SCCs to help avoid double counting. Once the nonpoint activity data or emissions were identified, Ohio imported the data into EPA tools for the specific sectors and a file was generated to be uploaded into the EIS Gateway's QA environment in draft form. Ohio quality assured the file in EPA's QA environment and corrections were made to satisfy EPA's QA checks. Once all errors were corrected, Ohio submitted emissions in final form.

For remaining nonpoint categories, other than the Ohio activity submissions (oil and gas, ICI, solvents, POTW, and gas distribution), Ohio used EPA default activity data. In cases

where Ohio provided State specific activity data, that data was collected from a variety of State organizations. For example, POTW data including annual discharge fees to estimate average flows and totals was provided by the Division of Surface Water in Ohio EPA.

Throughout the process of the nonpoint inventory development, Ohio took part in monthly NOMAD calls along with calls for NOMAD sub-committees. Through the regular conference calls, States were able to provide input throughout the development process of the 2017 NEI. Also, the calls provided information and guidance which helped develop a consistent and accurate inventory. Ohio collected nonpoint 2017 emissions from the 2017gb emissions modeling platform. The files provided annual data which Ohio converted to tpd using the conversion factors identified above.

Nonroad Mobile Sources

Nonroad mobile sources are mobile sources that are not certified for highway use and include equipment that can either move under their own power or can be moved from site to site. Ohio collected nonroad 2017 emissions data from the 2017gb emissions modeling platform, which was initially developed in the 2017 NEI. This file provided monthly data which were converted to tpd by dividing July emissions by the number of days in July. During the development of the 2017 NEI, EPA used MOVES2014b to generate nonroad emissions. Ohio EPA did not provide State specific data for the development of nonroad

emissions. Since Ohio did not provide State specific data, data from default databases in MOVES were used to generate emissions.

Onroad Mobile Sources

Onroad mobile sources are motor vehicles traveling on local highways and roads. Onroad emissions data were developed by the Northeast Ohio Areawide Coordinating Agency (NOACA), the Akron Metropolitan Area Transportation Study (AMATS), and the Ohio Department of Transportation (ODOT), in consultation with Ohio EPA and EPA, using emission factors produced by MOVES3 and data produced by the region's updated travel-demand model.

Biogenic Sources

Biogenic emissions come from natural sources including vegetation and soils. 2017 biogenic emissions were collected from the 2017gb emissions modeling platform. This file provided monthly data which was converted to tpd by dividing July emissions by the number of days in July.

Summary of the Emissions Inventory

2017 ozone season day emissions in tpd of NO_x and VOCs for each county by sector are shown in tables 1 and 2, below.

Table 1. Cleveland NO_x emissions for 2017 base year (tpd)

| County | EGU | Non-EGU | Nonpoint | Onroad | Nonroad | Total Anthropogenic | Biogenic | Total |
|--------------|-------------|--------------|--------------|--------------|--------------|---------------------|-------------|---------------|
| Cuyahoga | 0.00 | 7.38 | 6.12 | 21.06 | 9.95 | 44.51 | 0.59 | 45.10 |
| Geauga | 0.00 | 0.02 | 0.16 | 2.04 | 1.43 | 3.65 | 0.59 | 4.24 |
| Lake | 0.05 | 1.70 | 2.51 | 4.34 | 3.57 | 12.17 | 0.34 | 12.51 |
| Lorain | 3.05 | 0.99 | 2.95 | 5.30 | 3.42 | 15.71 | 1.10 | 16.81 |
| Medina | 0.00 | 0.18 | 0.87 | 4.72 | 1.60 | 7.37 | 1.01 | 8.38 |
| Portage | 0.00 | 0.29 | 1.80 | 2.98 | 1.97 | 7.04 | 0.97 | 8.01 |
| Summit | 0.00 | 0.72 | 2.08 | 9.78 | 3.35 | 15.93 | 0.72 | 16.65 |
| Total | 3.10 | 11.29 | 16.48 | 50.22 | 25.29 | 106.38 | 5.32 | 111.70 |

Table 2. Cleveland VOC emissions for 2017 base year (tpd)

| County | EGU | Non-EGU | Nonpoint | Onroad | Nonroad | Total Anthropogenic | Biogenic | Total |
|----------|------|---------|----------|--------|---------|---------------------|----------|--------|
| Cuyahoga | 0.00 | 3.20 | 53.46 | 12.49 | 12.65 | 81.80 | 22.33 | 104.13 |

| | | | | | | | | |
|----------------|------|------|--------|-------|-------|--------|--------|--------|
| Geauga | 0.00 | 0.08 | 3.99 | 2.46 | 1.20 | 7.73 | 22.50 | 30.23 |
| Lake | 0.00 | 0.77 | 10.83 | 3.62 | 2.58 | 17.80 | 14.50 | 32.30 |
| Lorain | 0.13 | 0.81 | 10.26 | 3.96 | 3.23 | 18.39 | 14.16 | 32.55 |
| Medina | 0.00 | 0.35 | 9.87 | 1.92 | 2.65 | 14.79 | 13.16 | 27.95 |
| Portage | 0.00 | 1.31 | 7.29 | 4.39 | 1.87 | 14.86 | 23.41 | 38.27 |
| Summit | 0.00 | 1.26 | 20.90 | 4.97 | 5.75 | 32.88 | 21.62 | 54.50 |
| Total | 0.13 | 7.79 | 116.60 | 29.93 | 33.82 | 188.27 | 131.68 | 319.95 |

3. Evaluation of Ohio's 2017 Base Year Emission Inventory

EPA has reviewed Ohio's 2017 base year emissions inventory for consistency with sections 172(c)(3) and 182(a)(1) of the CAA and EPA's emission inventory requirements. The selection of 2017 as the base year comports with the RFP baseline year requirements set forth in the SIP Requirements Rule and codified at 40 CFR 51.1310(b).

EPA has reviewed the techniques used by Ohio to derive and quality assure the emission estimates. Ohio documented the procedures used to estimate the emissions for each of the major source types. The documentation of the emission estimation procedures is thorough and adequate to determine that Ohio followed acceptable procedures to estimate the emissions.

Ohio developed a QA plan and followed this plan during various phases of the emissions estimation and documentation process to quality assure the emissions for completeness and accuracy. These QA procedures were summarized in the documentation describing how the emissions estimates were developed. Because it meets the applicable requirements, EPA is proposing to approve Ohio's 2017 base year emissions inventory for the Cleveland area for the 2015 ozone NAAQS.

B. 15% RFP Plan

1. Background

The CAA requires that States with areas designated as nonattainment for ozone achieve RFP toward attainment of the ozone NAAQS. CAA section 172(c)(2) contains a general requirement that nonattainment plans must provide for emissions reductions that meet RFP. For areas classified Moderate and above, section 182(b)(1) imposes a more specific RFP requirement that a State was required to meet through a 15% reduction in VOC emissions from the baseline anthropogenic emissions within 6 years after November 15, 1990.

The SIP Requirements Rule addressed, among other things, RFP requirements as they apply to areas designated nonattainment and classified as Moderate for the 2015 ozone NAAQS.¹² RFP requirements under the 2015 ozone NAAQS are codified at 40 CFR 51.1310. EPA interprets the 15% VOC emission reduction requirement in CAA section 182(b)(1) such that a State that has already met the 15% requirement for VOC for an area under either the 1-hour ozone NAAQS or a prior 8-hour ozone NAAQS would not have to fulfill that requirement through reductions of VOC again. Instead, EPA interprets CAA section 172(c)(2) to require States with such areas to obtain 15% ozone precursor emission reductions from VOC and/or NO_x over the first 6 years after the baseline year for the 2015 ozone NAAQS. Ohio previously met the 15% VOC reduction requirement of CAA section 182(b)(1) for the Cleveland area under the 1-hour ozone NAAQS.¹³ Therefore, the

¹² 83 FR 62998 at 63004, December 6, 2018.

¹³ 74 FR 47414, September 15, 2009.

State may rely upon both VOC and NO_x emissions reductions to meet the RFP requirement for the 2008 ozone NAAQS.

The SIP Requirements Rule specifies that the baseline emissions inventory for RFP plans shall be the most recent calendar year prior to designation for which a complete triennial inventory is required to be submitted to EPA under the provisions of subpart A of 40 CFR part 51, Air Emissions Reporting Requirements, 40 CFR 51.1 through 50. For areas designated as nonattainment in 2018, the most recent triennial inventory year conducted for the NEI pursuant to the AERR rule is 2017. The rule also allows the use of an alternative RFP baseline year that corresponds with the year of the effective date of an area's designation, *i.e.*, 2018 for areas designated nonattainment in 2018.¹⁴

States may not take credit for VOC or NO_x reductions occurring from sources outside the nonattainment area for purposes of meeting the 15% RFP requirements of CAA sections 172(c)(2), 182(b)(1), and 182(c)(2)(B).¹⁵

Except as specifically provided in CAA section 182(b)(1)(C) and (D) and CAA section 182(c)(2)(B), all emission reductions from SIP-approved or Federally promulgated measures that occur after the baseline emissions inventory year are creditable for purposes of the RFP requirements in this section, provided the reductions meet the requirements for creditability, including the need to be enforceable, permanent, quantifiable, and

¹⁴ 83 FR 62998 at 63005, December 6, 2018, codified at 40 CFR 51.1310(b).

¹⁵ 40 CFR 51.1310(a)(6).

surplus.¹⁶ Further, the Administrator has determined that the four categories of control measures listed in CAA section 182(b)(1)(D) are no longer required to be calculated for exclusion in RFP analyses because due to the passage of time the effect of these exclusions would be *de minimis*.¹⁷

2. Ohio's 15% RFP Plan

Emission Inventories

To demonstrate that the Cleveland area has achieved 15% RFP over the 6-year attainment planning period, Ohio is using a 2017 base year inventory and a 2023 RFP inventory. The procedures Ohio used to develop the 2017 base year inventory are discussed in section I.A., above. When developing the 2023 RFP inventory, Ohio estimated onroad emissions using EPA's MOVES3 model. For the point, nonpoint, and nonroad source categories, Ohio projected 2023 emissions from the 2017 base year inventory as described below.

As with the 2017 base year inventory, point source emissions were divided into two categories, EGU and non-EGU. Ohio derived 2023 projected EGU emissions from the 2017 inventory by evaluating each facility individually. Ohio considered 2017 to 2021 historical emissions along with Eastern Region Technical Advisory Committee (ERTAC) 2023 projections, where available for larger sources, and selected the most reasonable, conservative projection for 2023. Ohio also searched for any new EGUs with reported emissions after 2017 and

¹⁶ 40 CFR 51.1310(a)(5).

¹⁷ 40 CFR 51.1310(a)(7).

reviewed recent permitting actions for any title V or synthetic minor facilities that have been permitted but have not yet begun reporting emissions. Ohio determined that 2023 emissions were unchanged from 2017 emissions with the following exceptions:

- Eastlake Substation: Ohio set 2023 emissions at zero, as B006 was permanently shut down in February 2020 and the only operating units remaining at the facility produce de minimis emissions.
- Avon Lake Power Plant: Ohio set 2023 emissions at zero as the only coal-fired boiler (B012) was permanently shut down in April 2022.
- Lorain County LFG Power Station: Ohio set 2023 emissions to the most recent available (2021) as two units (P004 and P001) permanently shut down in 2020.
- Oberlin Municipal Light & Power System: Ohio set 2023 emissions to the highest recent available (2020) to be conservative.
- West Lorain Plant: Ohio set 2023 emissions to the highest recent available (2021) to be conservative.
- OMEGA JV2 - Seville: The facility reported zero emissions in 2017. Ohio set 2023 emissions to the most recent available (2021).
- CF1 (Cuyahoga Falls 1): The facility did not report emissions from 2013 to 2017. Ohio set 2023 emissions to the most recent available (2021).
- CF2 (Cuyahoga Falls 2): This is a new facility which began

operation after 2017. Ohio set 2023 emissions to the most recent available (2021).

Ohio also considered the potential impact that the proposed Transport Federal Implementation Plan (FIP)¹⁸ would have on EGUs in 2023. Ohio determined that the only operating EGU in the Cleveland nonattainment area that would be subject to the FIP is the West Lorain Plant (Facility ID 0247080487). Ohio's assessment of West Lorain's recent operations is that minimal changes in NO_x emissions are anticipated as a result of the FIP. Finally, Ohio considered the impact of recent revisions to the NO_x RACT rules in the Cleveland nonattainment area, which removed the exemption for EGUs. Ohio has determined that the RACT revisions will have little to no impact on EGU emissions in the Cleveland area.

Ohio projected 2023 emissions for non-EGUs by determining the annual rate of rate of change from the 2016v2 platform between 2016 and 2023 (by facility) and applying that annual rate of change to the 2017 emissions. Ohio reviewed the 2016v2 platform Technical Support Document to evaluate the methodology used to project 2023 from 2016 and determined it is still appropriate for projections from 2017. Ohio further evaluated the specific projection factors for each of the NAICS categories that comprise 80% of the 2023 projected NO_x and VOC emissions in the nonattainment area, along with the resultant emission projections for each facility in those NAICS categories. Ohio

¹⁸ 87 FR 20036, April 6, 2022. EPA finalized the transport FIP on June 5, 2023, 88 FR 36654.

does not have any information to suggest that the 2016v2 projection methodology is not appropriate for these sources in Ohio except where the emissions were adjusted as described below. Ohio also searched for any new non-EGUs with reported emissions after 2017 and reviewed recent permitting actions for any Title V or synthetic minor facilities that have been permitted but have not yet begun reporting emissions.

Ohio made the following adjustments to the non-EGU inventory.

- Ohio set 2023 emissions for several sources to zero due to the permanent shut down of the facility or individual units after 2017.
- Ohio added new facilities which began operation after 2017 to the inventory and set 2023 projected emissions to the most recently available emissions (2021).
- An annual rate of change from the 2016v2 platform was not available for two sources, so Ohio used the most recently available emissions estimates (2021).
- Facilities which did not report emissions or reported zero emissions in 2017 but reported emissions since 2017 were added to the inventory. In some cases, the facility may have been idled and later resumed operation. In other cases, the facility may have been operating but was not required to report detailed emissions (including smaller sources such as those without a title V permit). In those cases, the exact base year (2017) emissions are unknown, and

Ohio assumed them to be to be zero for conservatism. Ohio set 2023 projected emissions to most recently available emissions (2021).

- Emissions for two additional facilities were adjusted. For the Medical Center Company (Facility ID 1318003059), coal-fired boilers B003 and B004 were permanently shut down in 2017. Therefore, the 2016v2 projection factors which are based on coal use are not appropriate for projection from 2017. Ohio conducted a review of recent emissions and set 2023 emissions to most recently available emissions (2021). For Automated Packaging Systems (Facility ID 1667080055), VOC controls were updated in 2019. Ohio conducted a review of recent emissions and set 2023 emissions to most recently available emissions (2021).

Ohio considered the impact of recent revisions to the NO_x RACT rules in the Cleveland nonattainment area. Because NO_x RACT has been in place in the Cleveland nonattainment area for many years and the recent rule revisions are expected to yield only minor emissions reductions, Ohio is not adjusting 2023 emissions to account for the recent rule revisions. As any changes would be a decrease in emissions, not quantifying them in this inventory results in a conservative estimate of future year emissions.

Ohio collected 2023 projected emissions for nonpoint sources from the 2023fj projection of the 2016v2 emissions modeling platform. These files provided annual data which Ohio

converted to ozone season day emissions using the conversion factors described in section II.A.2. of this preamble. Ohio determined it is appropriate to use the 2023 projections from the 2016v2 emissions modeling platform for the nonpoint sector because emissions for most portions of the nonpoint sector started with 2017 NEI emissions and were adjusted (backcasted) to better represent the year 2016. Therefore, the foundation of the 2023 projections in the 2016v2 inventory is 2017 data and it is appropriate for use in this inventory. There are two exceptions to the 2017 foundation for the nonpoint sector of the 2016v2 platform: solvents and rail. As discussed in Ohio's submittal, Ohio has examined the base year emissions and projections for these categories and determined that using the 2016v2-based 2023 projections is reasonable and conservative.

Ohio calculated 2023 projected emissions for nonroad sources by determining the annual rate of change from the 2016v2 platform between 2016 and 2023 and applying that annual rate of change to the 2017 emissions. Ohio determined it was appropriate to apply the annual rate of change determined from the 2016v2 platform because the nonroad emissions in the Cleveland nonattainment area in the 2016v2 and 2017gb inventories are very similar and the methodology used to project 2023 from 2016 would still be appropriate for projections from 2017.

2023 onroad emissions were developed by the NOACA, AMATS, and ODOT, in consultation with Ohio EPA and EPA, from emission

factors produced by MOVES3 and data produced by the region's updated travel-demand model.

Biogenic emissions are not included in the RFP inventory in accordance with EPA's "May 2017 Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations."

2023 ozone season day emissions of NO_x and VOCs for each county by sector are shown in tables 3 and 4, below.

Table 3. Cleveland NO_x emissions for 2023 (tpd)

| County | EGU | Non-EGU | Nonpoint | Onroad | Nonroad | Total |
|--------------|------|---------|----------|--------|---------|-------|
| Cuyahoga | 0.00 | 7.03 | 6.80 | 13.96 | 8.58 | 36.37 |
| Geauga | 0.00 | 0.02 | 0.27 | 1.25 | 1.24 | 2.78 |
| Lake | 0.05 | 1.94 | 2.59 | 2.54 | 3.08 | 10.20 |
| Lorain | 0.62 | 1.03 | 2.64 | 3.12 | 2.94 | 10.35 |
| Medina | 0.01 | 0.24 | 0.90 | 2.47 | 1.38 | 5.00 |
| Portage | 0.00 | 0.30 | 1.73 | 1.80 | 1.70 | 5.53 |
| Summit | 0.02 | 0.71 | 2.53 | 5.92 | 2.89 | 12.07 |
| Total | 0.69 | 11.26 | 17.47 | 31.06 | 21.81 | 82.29 |

Table 4. Cleveland VOC emissions for 2023 (tpd)

| County | EGU | Non-EGU | Nonpoint | Onroad | Nonroad | Total |
|--------------|------|---------|----------|--------|---------|--------|
| Cuyahoga | 0.00 | 3.30 | 41.11 | 8.12 | 10.13 | 62.66 |
| Geauga | 0.00 | 0.12 | 3.75 | 0.73 | 1.99 | 6.59 |
| Lake | 0.00 | 0.97 | 8.49 | 1.60 | 2.94 | 14.00 |
| Lorain | 0.11 | 0.82 | 8.89 | 2.01 | 3.21 | 15.04 |
| Medina | 0.00 | 0.43 | 7.48 | 1.54 | 1.56 | 11.01 |
| Portage | 0.00 | 1.29 | 7.02 | 1.39 | 3.56 | 13.26 |
| Summit | 0.03 | 0.89 | 18.37 | 4.28 | 4.03 | 27.60 |
| Total | 0.14 | 7.81 | 95.12 | 19.67 | 27.42 | 150.16 |

15% RFP Demonstration

Ohio demonstrated that the Cleveland area has achieved 15% RFP over the 6-year attainment planning period entirely through NO_x and/or VOC emissions reductions in the onroad sector attributable to EPA's existing Federal regulations for onroad mobile sources. EPA mobile source regulations currently being implemented across the country include: passenger vehicle, SUV, and light duty truck emissions and fuel standards; light-duty

truck and medium-duty passenger vehicle evaporative standards; heavy-duty highway compression engine standards; heavy-duty spark ignition engine standards; motorcycle emission standards; Mobile Source Air Toxics fuel formulation standards, passenger vehicle emission standards, and portable container emission standards.¹⁹ The emission reductions due to implementation of these Federal rules within the Cleveland Moderate nonattainment area are reflected in future emission projections with EPA's MOVES3 model. Ohio projected mobile source activity to the RFP forecast year 2023. This analysis demonstrated a decrease in ozone precursor emissions from 2017 to 2023. The estimated emissions reductions are therefore not due to reductions in source activity, but to the implementation of control measures. These Federal control measures are permanent and enforceable and are implemented in the nonattainment area.

Table 5 shows the calculations Ohio used to determine that onroad mobile source emissions reductions meet the 15% RFP requirement.

Table 5. 15% RFP Calculations (tpd)

| Description | Formula | VOC | NO _x |
|---|---------|--------|-----------------|
| A. 2017 base year inventory | | 188.27 | 106.38 |
| B. RFP reductions totaling 15% (VOC% + NO _x % = 15) | | 3% | 12% |
| C. RFP emissions reductions required between 2017 & 2023 | A*B | 5.65 | 12.77 |
| D. RFP Target Level for 2023 | A-C | 182.62 | 93.61 |
| E. Reductions between 2017 and 2023 Federal onroad regulations | | 10.26 | 19.16 |
| F. Adjustments to reductions Safety margin (Allocated to mobile source budget) | | 2.95 | 4.66 |
| G. Creditable reduction | E-F | 7.31 | 14.50 |
| H. Compare creditable reductions to RFP reduction requirements to determine if at least 15% reduction is achieved | G>C | Yes | Yes |
| I. 2023 Projected Emissions | | 150.16 | 82.29 |
| N. Compare RFP target with 2017 projected emissions to determine if RFP requirements are met | I<D? | Yes | Yes |

¹⁹ 40 CFR parts 59, 80, 85, 86, and 600.

Ohio has documented other measures that could have been used in the RFP plan but is relying exclusively on emissions reductions in the onroad sector attributable to Federal onroad programs to demonstrate 15% RFP. While Ohio is not relying on the following emission reductions to demonstrate RFP, they add to the weight of evidence confirming that the RFP requirement has been met.

- Emission reductions of 6.39 tpd of VOC and 3.48 tpd NO_x were calculated in the nonroad sector. While reductions in the nonroad sector are likely due to Federal control programs, they cannot be readily linked to specific control measures due to the methodology used to develop the 2023 projections.
- Emission reductions of 0.53 tpd of VOC and 3.12 tpd of NO_x can be attributed to the permanent shutdown of various point sources. Ohio has not included these source shutdowns in the RFP demonstration to reserve these emissions reductions for future use as offsets or for other needs.
- A reduction of up to 2.72 tpd of VOC emissions in the Cleveland area is estimated to result from strengthening the Consumer Products rules in OAC Chapter 3745-112. This rule was approved into the SIP effective August 9, 2023.²⁰ Ohio did not rely on these reductions for the RFP demonstration as they are difficult to accurately quantify.

3. Evaluation of Ohio's 15% RFP Plan

²⁰ 88 FR 43440, July 10, 2023.

EPA has reviewed Ohio's 15% RFP plan for consistency with sections 172(c)(2) and 182(b)(1) of the CAA and 40 CFR 51.1310. The selection of 2017 as the base year comports with the RFP baseline year requirements set forth in the SIP Requirements Rule and codified at 40 CFR 51.1310(b). EPA has reviewed the techniques used by Ohio to derive and quality assure the 2017 and 2023 emission estimates. Ohio documented the procedures used to estimate the emissions for each of the major source types. The documentation of the emission estimation procedures is thorough and adequate to determine that Ohio followed acceptable procedures to estimate the emissions. Ohio has demonstrated that emission reductions attributable to Federal onroad regulations are permanent and enforceable and will result in at least 15% RFP in the Cleveland area over the 6-year attainment planning period beginning with the 2017 base year. Thus, EPA is proposing to approve Ohio's 15% RFP plan for the Cleveland area for the 2015 ozone NAAQS.

C. Motor Vehicle Emission Budgets

1. Background

Under section 176(c) of the CAA, transportation plans, programs, or projects that receive Federal funding or support, such as the construction of new highways, must "conform" to (i.e., be consistent with) the SIP before they receive Federal funding or approval. Conformity to the SIP means that transportation activities will not cause or contribute to any new air quality violations, increase the frequency or severity

of any existing air quality problems, or delay timely attainment or any required interim emissions reductions or any other milestones. Regulations at 40 CFR part 93 subpart A set forth EPA policy, criteria, and procedures for demonstrating and ensuring conformity of transportation activities to a SIP.

Transportation conformity is a requirement for nonattainment and maintenance areas, as defined in 40 CFR 93.101. The budget in a State's SIP serves as a ceiling on emissions from an area's planned transportation system (see definition of "motor vehicle emissions budget" in 40 CFR 93.101 and how the term is used in 40 CFR 93.109 and 93.118).

When reviewing submitted SIPs containing budgets, EPA reviews the budgets for adequacy. Once EPA affirmatively finds the submitted budget is adequate for transportation conformity purposes, that budget must be used by State and Federal agencies in determining whether proposed transportation projects conform to the SIP as required by section 176(c) of the CAA.

EPA's substantive criteria for determining adequacy of a budget are set out in 40 CFR 93.118(e)(4). The process for determining adequacy is found in 40 CFR 93.118(f) and consists of three basic steps: public notification of a SIP submission, a public comment period, and EPA's adequacy finding. The regulations that allow EPA to begin an adequacy review through an NPRM in the Federal Register are found in 40 CFR 93.118(f)(2). This proposal notifies the public that EPA has received a SIP submission with budgets that EPA will review for

adequacy and begins the public comment period. Comments must be submitted to the docket for this proposal by the close of the comment period on this proposal.

2. VOC and NO_x Budgets for the Cleveland Area

The RFP plan includes VOC and NO_x budgets for the Cleveland area for 2023, the milestone year for RFP. EPA invites the public to comment on the adequacy of these budgets as well as on its proposed approval of the budgets and on other actions EPA is proposing in this action.

As discussed in sections II.A.2. and II.B.2. of this preamble, NOACA, AMATS and ODOT, in consultation with Ohio EPA and EPA, prepared motor vehicle emissions inventories for 2017 and 2023 for the purpose of setting budgets for the year 2023. These inventories were developed using up-to-date assumptions about vehicles mile traveled (VMT), socioeconomic variables, fuels used, weather inputs, other planning assumptions, and the latest approved motor vehicle emissions model at the time Ohio began to prepare the SIP submission, which was MOVES3. Total onroad emissions in the Cleveland area are shown in table 7.

Table 7. Total onroad emissions in the Cleveland area.

| | 2017 | 2023 |
|-----------------------|----------------|----------------|
| NO _x (tpd) | 50.22 | 31.06 |
| VOC (tpd) | 29.93 | 19.67 |
| VMT (miles/year) | 24,189,140,727 | 25,427,478,685 |

Table 8 identifies Ohio's 2023 budgets. The budgets, agreed upon as part of the interagency consultation process, include the emission estimates calculated for 2023 with an additional 15% safety margin allocated to those estimates to

accommodate future variations in travel demand models and VMT forecast. A State can add a safety margin to a budget based on the transportation conformity regulation at 40 CFR 93.124(a).

Table 8. Budgets for the Cleveland OH 2015 ozone nonattainment area (tpd)

| | 2023 Estimated Emissions | 2023 Mobile Safety Margin Allocation | 2023 Total Mobile Budget |
|-----------------------|---------------------------------|---|---------------------------------|
| NO _x (tpd) | 31.06 | 4.66 | 35.71 |
| VOC (tpd) | 19.67 | 2.95 | 22.62 |

3. Evaluation of the VOC and NO_x Budgets for the Cleveland Area

The VOC and NO_x budgets for the Cleveland area were developed as part of an interagency consultation process which includes Federal, State, and local agencies. The budgets were clearly identified and precisely quantified. Ohio has demonstrated that the Cleveland area can meet the 15% RFP requirement with mobile source emissions of 35.71 tpd of NO_x and 22.62 tpd of VOC in 2023 because, as shown in Table 6, despite partial allocation of the RFP plan surplus reductions, emissions will remain under 2023 RFP target levels. EPA is thus proposing to approve the 2023 VOC and NO_x budgets for use in determining transportation conformity in the Cleveland area under the 2015 ozone NAAQS.

D. Motor Vehicle Inspection and Maintenance (I/M) Program

1. Background

CAA section 182(b)(4) requires States with ozone nonattainment areas classified as Moderate to implement a Basic motor vehicle I/M program. The goal of I/M programs is to identify and repair high-emitting vehicles to improve air

quality in areas that are not attaining the NAAQS.²¹ The CAA generally requires I/M programs for areas across the country that meet certain criteria, such as air quality status, population, and/or geographic location. The CAA also directed EPA to establish minimum performance standards for Basic and Enhanced I/M programs. States have flexibility to design their own programs if they can show that their program is as effective as the model program used in the respective performance standard. EPA's requirements for Basic and Enhanced I/M programs are found in 40 CFR part 51, subpart S.

The Cleveland area was required to adopt a Basic I/M program under the 1-hour ozone NAAQS. EPA fully approved Ohio's I/M program on April 4, 1995, 60 FR 16989, and approved revisions to the program on January 6, 1997, 62 FR 646.

2. Ohio's I/M Certification

Consistent with the I/M regulations, a State with an existing I/M program would need to conduct and submit a performance standard modeling analysis as well as make any necessary program revisions as part of their Moderate area SIP submission to ensure that their I/M program is operating at or above the Basic I/M performance standard level for the 2015 ozone NAAQS. When certifying that an existing I/M program meets applicable I/M requirements for a new NAAQS, it is necessary that the State ensures that an I/M program reflects the I/M

²¹ For more information, see *Overview of Vehicle Inspection and Maintenance (I/M) Programs* (EPA-420-F-21-067, October 2021) at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013CC0.pdf>.

rule's required elements for a Basic or Enhanced I/M program and the applicable classification for the new ozone NAAQS. If an I/M program for a previous NAAQS contains the required elements for a new NAAQS (e.g., such as onroad mobile source testing for an Enhanced I/M program), then the State may determine through the performance standard modeling analysis that an existing SIP-approved program would meet the applicable performance standard for purposes of the 2015 ozone NAAQS without modification.

Ohio EPA is certifying that the existing SIP-approved I/M program meets the Basic I/M program requirements of CAA section 182(b)(4) for the Cleveland Moderate nonattainment area under the 2015 ozone NAAQS. The requirements for Ohio's I/M program are found in Ohio Administrative Code 3745-26 I/M Program Rules and Regulations. Ohio's I/M program requires on-board diagnostic testing of gasoline-fueled and diesel-fueled motor vehicles up to 10,000 pounds gross vehicle weight rating (GVWR) that are between four and 25 model years (MY) old. The I/M program also implements an emissions control device inspection through visual inspection for the presence of catalytic converter(s) and other major emissions control equipment.

In addition, Ohio EPA submitted an I/M performance standard modeling analysis demonstrating that Ohio's current motor vehicle I/M program exceeds the level of EPA's Enhanced performance standard for areas designated and classified under the 8-hour ozone standard, as specified in 40 CFR 51.351(i). Ohio conducted the modeling analysis using EPA's mobile source

emissions model, MOVES3.0.2, which was the latest model version at the time the analysis was started. This modeling was conducted for analysis year 2023 in accordance with EPA's technical guidance: "Performance Standard Modeling for New and Existing Vehicle Inspection and Maintenance (I/M) Programs Using the MOVES Mobile Source Emissions Model", EPA-420-B-22-034, October 2022,²² (October 2022 Performance Standard Modeling Guidance). The performance standard modeling analysis involves a comparison of emission reductions from EPA's model program specified in 40 CFR 51.351(i) and Ohio's actual program in the seven counties of Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit. In all cases, the analysis shows that the emission reductions from Ohio's actual I/M program exceed the emission reductions modeled for the benchmark program of both the Basic and Enhanced I/M performance standards.

3. Evaluation of Ohio's I/M Certification

As a Moderate area for the 2015 ozone NAAQS, Cleveland is only required to implement a Basic I/M program. However, the Cleveland area continues to implement the Enhanced I/M program adopted into the area's SIP under the 1-hour ozone NAAQS. EPA's October 2022 Performance Modeling Guidance addresses the situation where a State may need to demonstrate that an area's current Enhanced I/M program satisfies the Basic I/M SIP requirement. "[I]t is reasonable to presume that if an I/M program meets the Enhanced performance standard, then it would

²² <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1015S5C.pdf>

also meet the Basic performance standard so long as the analysis years are appropriate for the two 8-hour ozone standards in question.”²³ The guidance goes on to identify the attainment date as the appropriate analysis year for areas that have been reclassified.²⁴

Cleveland’s Moderate attainment date is August 3, 2024. However, because that date falls in the middle of the ozone season, 2023 is the year that will be used to determine whether the area achieves attainment by the attainment date. Therefore, Ohio appropriately chose 2023 as the analysis year to be consistent with the year in which attainment would be determined.

To demonstrate that an I/M program meets the Enhanced performance standard, the actual I/M program must achieve the same or lower emissions levels of NO_x and VOCs as the Federal model Enhanced program to within 0.02 gpm.

Table 9. Summary of I/M Performance Standard Evaluation for the Cleveland 2015 Ozone Nonattainment Area

| Pollutant | OH I/M program VOC emission rate | I/M VOC performance standard benchmark | I/M VOC performance standard benchmark plus buffer | Does existing program meet I/M performance standard? |
|-----------------|----------------------------------|--|--|--|
| VOC | 0.2442 | 0.2444 | 0.2644 | Yes |
| NO _x | 0.1502 | 0.1504 | 0.1704 | Yes |

As shown in table 9, the emission reductions from Ohio’s actual I/M program shows Ohio’s program performs better than the Enhanced performance standard of 40 CFR 51.351(i). Ohio conducted the performance modeling analysis using the most

²³ October 2022 Performance Standard Modeling Guidance, p. 10.

²⁴ Ibid.

recent version of EPA's mobile source emissions model, MOVES3.0.2, in accordance with EPA's October 2022 Performance Modeling Guidance. Therefore, since Ohio's current I/M program meets the applicable I/M performance requirements in all areas in which the program is implemented and also meets the Basic I/M requirements of CAA section 182(b)(4), we are proposing to approve Ohio's I/M program SIP element for the Cleveland Moderate nonattainment area under the 2015 ozone NAAQS.

E. NNSR Review

1. Background

NNSR is a preconstruction review permit program that applies to new major stationary sources or major modifications at existing sources within a nonattainment area and is required under CAA sections 172(c)(5) and 173. NNSR permit program requirements were adopted for the 2015 ozone NAAQS at 40 CFR 51.1314 as part of the 2015 SIP Requirements Rule. The minimum SIP requirements for NNSR permitting programs for the 2015 ozone NAAQS are contained in 40 CFR 51.165. The SIP for each ozone nonattainment area must contain NNSR provisions that: 1) set major source thresholds for NO_x and VOC pursuant to 40 CFR 51.165(a)(1)(iv)(A)(1)(i)-(iv) and (2); 2) classify physical changes as a major source if the change would constitute a major source by itself pursuant to 40 CFR 51.165(a)(1)(iv)(A)(3); 3) consider any significant net emissions increase of NO_x as a significant net emissions increase for ozone pursuant to 40 CFR 51.165(a)(1)(v)(E); 4) consider any increase of VOC emissions in

Extreme ozone nonattainment areas as a significant net emissions increase and a major modification for ozone pursuant to 40 CFR 51.165(a)(1)(v)(F); 5) set significant emissions rates for VOC and NO_x as ozone precursors pursuant to 40 CFR 51.165(a)(1)(x)(A)-(C) and (E); 6) contain provisions for emissions reductions credits pursuant to 40 CFR 51.165(a)(3)(ii)(C)(1)-(2); 7) provide that the requirements applicable to VOC also apply to NO_x pursuant to 40 CFR 51.165(a)(8); 8) set offset ratios for VOC and NO_x pursuant to 40 CFR 51.165(a)(9)(ii)-(iv); and 9) require public participation procedures compliant with 40 CFR 51.165(i).

2. Ohio's NNSR Certification

Ohio EPA is certifying that the existing NNSR program meets the NNSR requirements of CAA section 182(a)(2)(C) and (b)(5) for the Cleveland area under the 2015 ozone NAAQS. Ohio has a longstanding and fully implemented NNSR program. This is addressed in OAC Chapter 3745-31. The Chapter includes provisions for the Prevention of Significant Deterioration (PSD) permitting program in OAC rules 3745-31-01 to 3745-31-20 and NNSR program in rules 3745-31-21 to 3745-31-27. Ohio's PSD program was conditionally approved on October 10, 2001, 66 FR 51570, and received final approval on January 22, 2003, 68 FR 2909. Ohio's NNSR program was granted limited approval on September 8, 1993, 58 FR 47211, and received final approval on January 10, 2003, 68 FR 1366. On February 25, 2010, 75 FR 8496, EPA approved revisions to Ohio's PSD and NNSR rules which were

adopted to implement revisions to the Federal PSD and NNSR regulations in 40 CFR parts 51 and 52, which became effective on March 3, 2003,²⁵ commonly referred to as "NSR Reform" regulations.

Additionally, Ohio is certifying that the emission offset ratios established in OAC rule 3745-31-26 are consistent with the emission offset ratio requirements established in the CAA based on ozone nonattainment classifications. Specifically, Ohio rule 3745-31-26 establishes an offset ratio of 1.15 to 1 for moderate areas, as required by CAA section 182(b) (5).

3. Evaluation of Ohio's NNSR Certification

Table 10 below provides the sections of Ohio's NNSR rule corresponding to the relevant requirements at 40 CFR 51.165. Each requirement identified in Ohio's certification has not been revised since EPA last approved it. Table 9 lists the specific provisions of Ohio's NNSR rules that address the required elements of the Federal NNSR rules:

Table 10. NNSR SIP Rules Comparison

| Federal Rule | Ohio Rule |
|--|---|
| 40 CFR 51.165(a) (1) (iv) (A) (1) (i)-(iv) | R. 3745-31-01(M) (5) (a) (i), (ii), (iii), (iv) |
| 40 CFR 51.165(a) (1) (iv) (A) (2) (i)-(vi) | 3745-31-01(M) (5) (a) and (c) |
| 40 CFR 51.165(a) (1) (iv) (A) (3) | R. 3745-31-01(M) (5) (e) |
| 40 CFR 51.165 (a) (1) (iv) (B) | R. 3745-31-01(M) (5) (c) |
| 40 CFR 51.165(a) (1) (v) (B) | R. 3745-31-01(M) (3) (b) |
| 40 CFR 51.165 (a) (1) (v) (E) | R. 3745-31-01(M) (3) (b) |
| 40 CFR 51.165(a) (1) (v) (F) | N/A |
| 40 CFR 51.165(a) (1) (x) (A) | R. 3745-31-01(S) (5) |
| 40 CFR 51.165(a) (1) (x) (B) | N/A (<i>applicable to areas classified as Serious or Severe</i>) |
| 40 CFR 51.165(a) (1) (x) (C) | R. 3745-31-01(S) (5) (<i>only for 40 tpy threshold, which addresses areas classified as moderate</i>) |
| 40 CFR 51.165(a) (1) (x) (E) | N/A (<i>applicable to areas classified as extreme</i>) |
| 40 CFR 51.165 (a) (1) (xxxvii) (C) (1) | R. 3745-31-01(R) (5) (a) (iii) (a) |

²⁵ 67 FR 80186 (December 31, 2002).

| | |
|---------------------------------------|---|
| 40 CFR 51.165(a)(3)(ii)(C)(1)(i)-(ii) | R. 3745-31-24(F)(1)(a), (b) |
| 40 CFR 51.165(a)(3)(ii)(C)(2)(i)-(ii) | R. 3745-31-24(F)(2) |
| 40 CFR 51.165(a)(8) ²⁶ | R. 3745-31-01(M)(5)(a), (c) R. 3745-31-01(S)(5) |
| 40 CFR 51.165(a)(9)(ii)(A)-(E) | R. 3745-31-26(C)(2), (3), (4), (5), (6) |
| 40 CFR 51.165(a)(9)(iii) | N/A |
| 40 CFR 51.165(a)(9)(iv) | R. 3745-31-26(C)(1) |
| 40 CFR 51.165(a)(12) | N/A (<i>Ohio has no nonattainment areas for the 2008 ozone NAAQS</i>) |

EPA has reviewed Ohio's approved NNSR rules and is proposing to approve Ohio's certification submittal because we find that the current SIP-approved NNSR program satisfies all the NNSR program requirements currently applicable to the Cleveland area for the 2015 ozone NAAQS.

III. Environmental Justice Considerations

Ohio used EPA's environmental justice (EJ) screening and mapping tool, EJScreen, to identify areas in the Cleveland nonattainment area with potentially overburdened communities and assess whether the Cleveland attainment plan would exacerbate existing pollution exposure or burdens for those communities. Because ozone is a regional pollutant, Ohio EPA screened the Cleveland area at two levels. Ohio EPA first screened each of the seven counties in the nonattainment area to identify potentially overburdened communities. Then Ohio screened and reviewed data for a 5-kilometer radius around the two violating ozone monitors, Eastlake monitor (39-085-003) in Lake County and District 6 monitor (39-035-0034) in Cuyahoga County.

Consistent with EPA's September 2019 EJScreen Technical

²⁶ Ohio's rule does not fully address the NOx waiver provision; however, it is not applicable to this action as the Cleveland area does not have a NOx waiver.

Documentation,²⁷ Ohio EPA is using the criterion of one or more EJ indexes at or above the 80th percentile nationally to screen for potentially overburdened communities. The countywide screenings showed no EJ indexes above the 80th percentile in Geauga, Medina, and Lake Counties; one EJ index above the 80th percentile in Loraine, Portage, and Summit Counties (EJ Index for Wastewater Discharge), and two EJ indexes above the 80th percentile in Cuyahoga County (EJ Indexes for Wastewater Discharge and Hazardous Waste Proximity). The results of the evaluation of the areas in a 5-kilometer radius around the two violating monitors helped to identify a potentially overburdened community on a more local scale. While the radius around the Eastlake monitor did not show any indicators of being in a potentially overburdened area, the area around the second monitor, District 6, did. The EJ screening of the area around District 6 showed the area to be in the 71st or higher percentile in every EJ index category, with seven EJ indexes above the 80th percentile. The area also ranks above the national average in every socioeconomic indicator.

While Ohio's screening process identified potentially overburdened communities in the Cleveland nonattainment area, ozone is a regional pollutant. Elevated levels of ambient ozone are the result of secondary urban scale atmospheric formation involving emissions from ubiquitous sources of ozone precursors

²⁷ https://www.epa.gov/sites/default/files/2017-09/documents/2017_ejscreen_technical_document.pdf

(VOC and NO_x) including motor vehicles, large and small industrial processes, and consumer products which result in more regional scale impacts further down wind. Therefore, Ohio has worked to develop ozone-related control strategies that most effectively reduce emissions that contribute to elevated ozone levels. Reducing ozone levels will protect all segments of the general population, including the health of the identified potentially overburdened communities. Ohio identified one attainment plan element that may be of additional benefit locally: Ohio's recently strengthened NO_x RACT rules (which will be addressed in a separate rulemaking action). Several emission sources upwind of the potentially overburdened community around the District 6 monitor will be subject to these rules and be required to comply with more stringent NO_x limits or to submit a study to establish a RACT level of controls at the facility. In addition, Ohio EPA has worked to identify and reach out to community organizations in potentially overburdened communities in the Cleveland nonattainment area.

As explained in the "EJ Legal Tools to Advance Environmental Justice" 2022 document, the CAA provides States with the discretion to consider EJ in developing rules and measures related to ozone attainment planning. In this instance, Ohio EPA exercised this discretion, as is described above in summary. In reviewing Ohio EPA's analysis, EPA defers to the Ohio EPA's reasonable exercise of its discretion in considering EJ in this way. EPA is taking proposed action to approve the

SIP revision because we find that it meets the applicable requirements pursuant to the CAA and relevant implementing regulations. EPA also finds that Ohio EPA's consideration of EJ analyses in this context is reasonable. EPA encourages air agencies generally to evaluate EJ considerations of their actions and carefully consider impacts to communities. The EJ analyses submitted by the air agency were considered but were not the basis for EPA's decision making and the SIP met the minimum applicable requirements, as explained above.

IV. Proposed Action

EPA is proposing to approve revisions to Ohio's SIP pursuant to section 110 and part D of the CAA and EPA's regulations, because Ohio's December 21, 2022, attainment plan submission satisfies the base year emissions inventory, the RFP demonstration including associated motor vehicle emissions budgets, I/M, and NNSR requirements of the CAA for the Cleveland area for the 2015 ozone NAAQS. EPA is also initiating the adequacy process for the 2023 motor vehicle emissions budgets for the Cleveland area included in this SIP submission.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 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 CAA. Accordingly, this 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 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), and 14094 (88 FR 21879, April 11, 2023);
- 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 (Pub. L. 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 CAA.

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).

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, February 16, 1994) directs Federal agencies to identify and address "disproportionately high and adverse human health or environmental effects" of their actions on communities with EJ concerns to the greatest extent practicable and permitted by law. Executive Order 14096 (Revitalizing Our Nation's Commitment to Environmental Justice for All, 88 FR 25251, April 26, 2023) builds on and supplements E.O. 12898 and defines EJ as, among other things, the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability in agency decision-making and other Federal activities that affect human health and the environment.

The Ohio EPA evaluated EJ considerations as part of its SIP submittal given that the CAA and applicable implementing regulations neither prohibit nor require an evaluation. EPA's evaluation of the Ohio EPA's EJ considerations is described in section III of this preamble titled, "Environmental Justice

Considerations.” The analysis was done for the purpose of providing additional context and information about this rulemaking to the public, not as a basis of the action. EPA is taking action under the CAA on bases independent of the Ohio EPA’s evaluation of EJ. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air quality of the affected area. In addition, there is no information in the record upon which this decision is based that is inconsistent with the stated goal of E.O. 12898/14096 of achieving EJ for communities with EJ concerns.

List of Subjects in 40 CFR Part 52

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

Dated: December 19, 2024.

Debra Shore,
Regional Administrator, Region 5.

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