

The EPA Administrator, Andrew R. Wheeler, signed the following notice on 1/11/2021, and EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2020-0310. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

**[EPA-HQ-OAR-2020-0310; FRL-10019-11-OAR]**

### **40 CFR Part 81**

#### **Response to Clean Air Act Section 176A Petition from Maine**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of Proposed Action on Petition.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to grant a Clean Air Act (CAA) section 176A petition submitted by the state of Maine on February 24, 2020. The petition requests that the EPA remove a large portion of Maine from the Ozone Transport Region (OTR) based on that area's continued attainment with ozone National Ambient Air Quality Standards (NAAQS) and technical analyses demonstrating that the additional control of emissions from that portion of the state will not significantly contribute to ozone attainment in any area in the OTR. The OTR was established by the 1990 Clean Air Act (CAA or Act) Amendments and includes the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the District of Columbia, and portions of northern Virginia.

**DATES:** *Comments.* Comments must be received on or before **[INSERT DATE 45 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**. *Public Hearing.* A virtual public hearing will be held upon request. To request a public hearing, please notify Ms. Pamela Long, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air

Quality Policy Division, (C504-01), Research Triangle Park, NC 27711, telephone (919) 541-0641, fax number (919) 541-5509, email address [long.pam@epa.gov](mailto:long.pam@epa.gov), no later than **[INSERT DATE 10 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2020-0310, at <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. 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, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

Out of an abundance of caution, the EPA Docket Center and Reading Room was closed to public visitors on March 31, 2020, to reduce the risk of transmitting COVID-19. The EPA Docket Center and Reading Room has since started the reopening process. Visitors will be considered on an exception basis and allowed entrance by appointment only. Docket Center staff will continue to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit <https://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** Questions concerning this proposed notice should be directed to Holly DeJong, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail code C539-01, Research Triangle Park, NC 27711, telephone (919) 541-4353; email at *dejong.holly@epa.gov*.

For more information pertaining to a public hearing on this document, contact Pamela Long, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Policy Division, (C504-01), Research Triangle Park, NC 27711; telephone number (919) 541-0641; fax number (919) 541-5509; email at *long.pam@epa.gov* (preferred method of contact).

## **SUPPLEMENTARY INFORMATION:**

### **I. General Information**

Throughout this document wherever “we,” “us,” or “our” is used, we mean the U.S. EPA.

The information in this Supplementary Information section of this preamble is organized as follows:

#### **I. General Information**

A. Where can I get a copy of this document and other related information?

B. What acronyms, abbreviations and units are used in this preamble?

#### **II. Executive Summary of the EPA’s Proposed Decision on the Maine CAA Section 176A Petition**

#### **III. Background and Legal Authority**

A. Ozone Formation and Impacts

B. Sections 176A and 184 of the CAA and the OTR Process

C. Legal Standard for this Action

D. Previous Actions

#### **IV. Maine CAA Section 176A Petition**

A. Summary of the Maine CAA Section 176A Petition

B. Provisions Impacted by the Maine CAA Section 176A Petition

#### **V. The EPA’s Technical Assessment of the Maine CAA Section 176A Petition**

A. Description of the Technical Analysis Included in the Maine CAA Section 176A Petition

B. The EPA’s Technical Assessment of the Maine Section 176A Petition

#### **VI. The EPA’s Proposed Action on the Maine CAA Section 176A Petition**

Page 3 of 54

VII. Judicial Review and Determinations Under Section 307(b)(1) of the CAA

VIII. Statutory Authority

*A. Where can I get a copy of this document and other related information?*

In addition to being available in the docket, an electronic copy of this document will be posted at <https://www.epa.gov/ozone-pollution/ozone-national-ambient-air-quality-standards-section-176a-petition-maine>.

*B. What acronyms, abbreviations and units are used in this preamble?*

APA	Administrative Procedures Act
BACT	Best Available Control Technology
CAA or Act	Clean Air Act
CAIR	Clean Air Interstate Rule
CSAPR	Cross State Air Pollution Rule
CFR	Code of Federal Regulations
CMR	Code of Maine Regulations
CTG	Control Techniques Guideline
D.C. Circuit	United States Court of Appeals for the District of Columbia Circuit
DEP	Department of Environmental Protection
EGU	Electric Generating Unit
EPA	U.S. Environmental Protection Agency
FIP	Federal Implementation Plan
FR	Federal Register
HYSPLIT	Hybrid Single Particle Lagrangian Integrated Trajectory
I/M program	Inspection and Maintenance Program
LAER	Lowest Achievable Emission Rate
NAAQS	National Ambient Air Quality Standard
NEI	National Emissions Inventory
NNSR	Nonattainment New Source Review
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
ORVR Systems	Onboard Refueling Vapor Recovery Systems
OTAG	Ozone Transport Assessment Group
OTC	Ozone Transport Commission
OTR	Ozone Transport Region
PM	Particulate Matter
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide

## **II. Executive Summary of the EPA's Proposed Decision on the Maine CAA Section 176A**

### **Petition**

On February 24, 2020, the state of Maine petitioned the EPA pursuant to CAA section 176A(a)(2) for the removal of the state of Maine from the OTR except for 111 towns and cities comprising the Androscoggin Valley<sup>1</sup>, Down East<sup>2</sup> and Metropolitan Portland<sup>3</sup> Air Quality Control Regions, commonly referred to as the “Portland and Midcoast Ozone Areas.” Maine contends that emissions from northern and eastern Maine are not significant contributors to ozone nonattainment in other states nor do they interfere with maintenance of the ozone NAAQS in those Maine municipalities that would remain in the OTR. Therefore, removing these areas from the OTR would not degrade the air quality in Maine or in any other state. The petition includes monitoring data and technical analyses to support a demonstration that the areas requested to be removed from the OTR are in attainment with the ozone NAAQS and that emissions from these areas do not significantly contribute to ozone nonattainment in any area of the OTR. For the reasons described in this notice, the EPA is proposing to grant the petition on the basis that removing the areas of the state requested to be removed from the OTR would not result in emissions changes that would significantly contribute to nonattainment or interfere with maintenance in any area of the OTR.

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<sup>1</sup> 40 CFR 81.90 defines the Androscoggin Valley Interstate Air Quality Control Region as Androscoggin County, Kennebec County, Knox County, Lincoln County, Waldo County and parts of Franklin County, Oxford County, Somerset County.

<sup>2</sup> 40 CFR 81.181 defines the Down East Intrastate Air Quality Control Region as Hancock County, Washington County and parts of Penobscot County and Piscataquis County.

<sup>3</sup> 40 CFR 81.78 defines the Metropolitan Portland Intrastate Air Quality Control Region as Cumberland County, Sagadahoc County, York County, and the towns of Brownfield, Denmark, Fryburg, Hiram, and Porter.

Section 176A(a) of the CAA provides the Administrator with the authority to develop interstate transport regions for particular pollutants where the Administrator determines that interstate transport of air pollutants from one or more states contributes significantly to violations of air quality standards in other states. In the 1990 CAA Amendments, Congress created the OTR by statute under CAA section 184(a) to address the interstate transport of ozone pollution in the Northeast and Mid-Atlantic regions of the United States (U.S.).

The creation of an interstate transport region requires establishing a transport commission with representatives from each state who make recommendations to mitigate interstate pollution. Model rules and programs designed through the OTC (Ozone Transport Commission) may be adopted by the individual states through their own rulemaking processes. Under CAA section 184(c), the OTC may petition the EPA to approve additional control measures to be applied within all or part of the transport region. Maine seeks to remove portions of the state from the OTR, thereby releasing those areas from OTC recommendations and applicable control requirements established under CAA section 184.

Section 176A(a)(1) of the CAA provides the Administrator with authority to “add any state or portion of a state to any [transport] region . . . whenever the Administrator has reason to believe that the interstate transport of air pollutants from such state significantly contributes to a violation of the standard in the transport region.” Conversely, CAA section 176A(a)(2) allows the Administrator to “remove any state or portion of a state from [a transport] region whenever the Administrator has reason to believe that the control of emissions in that state or portion of the state . . . will not significantly contribute to the attainment of the standard in any area in the region.”

For the reasons fully described in this notice, and in consideration of monitoring data, technical demonstrations, and impacts to air quality control regimes in the areas to be removed, the EPA believes that the portion of Maine requested for removal from the OTR does not contribute to a violation of any ozone standard in any area of the OTR, and that further control of emissions from that portion of Maine will not significantly contribute to attainment of any ozone standard in any area of the OTR. Accordingly, the EPA is proposing to grant the CAA section 176A petition filed by the state of Maine to remove a portion of Maine from the OTR.

### **III. Background and Legal Authority**

#### *A. Ozone Formation and Impacts*

Ground-level ozone causes a variety of negative effects on human health, vegetation, and ecosystems. In humans, acute and chronic exposure to ozone is associated with premature mortality and several morbidity effects, such as asthma exacerbation. In ecosystems, ozone exposure may cause visible foliar injury, decrease plant growth, and affect ecological community composition.

Ground-level ozone is predominantly a secondary air pollutant created by chemical reactions between ozone precursors including nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) in the presence of sunlight. Emissions from electric generating utilities (EGUs), industrial facilities, motor vehicles, non-road equipment, gasoline vapors, and chemical solvents are some of the major anthropogenic sources of ozone precursors. The potential for ground-level ozone formation tends to be highest during months with warmer temperatures and stagnant air masses; therefore, ozone levels are generally higher during the summer months.<sup>4</sup>

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<sup>4</sup> Rasmussen, D.J. et. al. (2011) Ground-level ozone-temperature relationship in the eastern US: A monthly climatology for evaluating chemistry-climate models. *Atmospheric Environment* 47: 142-153.

Increased temperatures may also increase emissions of anthropogenic and biogenic VOC emissions and can indirectly increase anthropogenic NO<sub>x</sub> emissions as well (e.g., through increased electricity generation to power air conditioning).

The EPA has regulated ozone pollution and the precursor emissions that contribute to ozone for the last five decades.<sup>5</sup> Currently, there are two NAAQS in effect for ozone.<sup>6</sup> On March 12, 2008, the EPA promulgated a revision to the ozone NAAQS, lowering both the primary and secondary standards to 75 ppb.<sup>7</sup> On October 1, 2015, the EPA lowered the primary and secondary standards to 70 ppb.<sup>8</sup>

In accordance with CAA section 107(d), the EPA designates areas as "attainment" (meeting the standard), "nonattainment" (not meeting the standard) or "unclassifiable" (insufficient data to classify). States with areas designated as nonattainment must develop and submit State Implementation Plans (SIPs) to the EPA with the goal of attaining and maintaining the level of the NAAQS by the applicable attainment deadline. In this way, the EPA and states work collaboratively to establish and implement nonattainment area planning requirements that are designed to bring areas into attainment of the NAAQS by the applicable attainment deadline. A key step in ensuring that areas attain and maintain ozone NAAQS is to assess and understand

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<sup>5</sup> Primary and secondary NAAQS were first established for photochemical oxidants in 1971. 36 FR 8186 (April 30, 1971). In 1979, the EPA revised the NAAQS to change the indicator from photochemical oxidants to O<sub>3</sub> and to revise the primary and secondary standards. 44 FR 8202, (February 8, 1979). In 1997, the EPA once again revised the primary and secondary standards for ozone NAAQS. 62 FR 38856 (July 18, 1997). In 2015, the 1997 ozone NAAQS were revoked. 80 FR 12264 (March 6, 2015).

<sup>6</sup> The 1997 ozone NAAQS were revoked in 2015. 80 FR 12264 (March 6, 2015).

<sup>7</sup> See National Ambient Air Quality Standards for Ozone, Final Rule, 73 FR 16436 (March 27, 2008).

<sup>8</sup> See National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015).



the potential for ozone source formation in a given area, including the potential for upwind states' emissions to impact ozone formation in downwind states.

Precursor emissions can be transported downwind directly or, after transformation in the atmosphere, as ozone or secondary ozone precursors. Studies have established that ozone formation, atmospheric residence, and transport can occur on a regional scale (i.e., hundreds of miles) over much of the eastern U.S., with elevated concentrations occurring in rural as well as metropolitan areas.<sup>9</sup> Additionally, observational studies have demonstrated the presence of ozone and ozone precursor transport, and documented the impact that upwind emissions have on high concentrations of ozone pollution.<sup>10</sup> As a result of ozone transport, ozone pollution levels in a given location are impacted by a combination of local emissions and emissions from upwind sources. The transport of ozone across state borders compounds the difficulty for downwind states to be in attainment with ozone NAAQS. While substantial progress has been made in reducing ozone in many urban areas, regional-scale ozone transport is still a major component of peak ozone concentrations during the summer ozone season.

*B. Sections 176A and 184 of the CAA and the OTR Process*

Subpart 1 of part D of title I of the CAA provides the general plan requirements for designated nonattainment areas. This subpart includes provisions governing the development of transport regions to address the interstate transport of pollutants that contribute to NAAQS violations. In particular, section 176A(a) of the CAA provides that, on the EPA's own motion or by a petition from the Governor of any state, whenever the EPA has reason to believe that the

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<sup>9</sup> National Research Council. 1991. Rethinking the Ozone Problem in Urban and Regional Air Pollution. Washington, DC: The National Academies Press. <https://doi.org/10.17226/1889>.

<sup>10</sup> Downs, T., R. Fields, R. Hudson, I. Kheirbek, G. Kleiman, P. Miller, and L. Weiss. 2010. The Nature of the Ozone Air Quality Problem in the Ozone Transport Region: A Conceptual Description. Northeast States for Coordinated Air Use Management.

interstate transport of air pollutants from one or more states contributes significantly to a violation of the NAAQS in one or more other states, the EPA may establish, by rule, a transport region for such pollutant that includes such states. The provision further provides that the EPA may add any state or portion of a state to any transport region whenever the Administrator has reason to believe that the interstate transport of air pollutants from such state significantly contributes to a violation of the standard in the transport region.

Section 176A(b) of the CAA provides that when the EPA establishes a transport region, the Administrator shall establish an associated transport commission, comprised of (at a minimum) the following: the Governor or her or his designee of each covered state, the EPA Administrator or a designee, the Regional EPA Administrator or a designee, and an air pollution control official appointed by the Governor of each state. The purpose of the transport commission is to assess the degree of interstate transport throughout the transport region and assess and recommend control strategies to the EPA to mitigate such interstate transport.

Subpart 2 of part D of title I of the CAA provides plan requirements specific to the ozone NAAQS. Consistent with CAA section 176A, found in subpart 1, subpart 2 includes specific provisions focused on the interstate transport of ozone. CAA section 184(a) establishes a single transport region for ozone—the OTR—comprising the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the Consolidated Metropolitan Statistical Area for the District of Columbia, which includes certain portions of northern Virginia. The Virginia counties and cities included in the OTR are Arlington County, Fairfax County, Loudoun County, Prince William County, Stafford County, Alexandria City, Fairfax City, Falls Church City, Manassas City, and Manassas Park City.

Section 184(b) of the CAA establishes specific control requirements that each state in the OTR is required to implement within the state, including certain controls on sources of NO<sub>x</sub> and VOCs. These control requirements are required to be implemented statewide in any state included within the OTR, regardless of ozone attainment status.<sup>11</sup> Under CAA section 184(b)(1)(A), OTR states must include enhanced vehicle emissions inspection and maintenance (I/M) programs in their SIPs.<sup>12</sup> Under CAA section 184(b)(2), major stationary sources of VOCs in OTR states are subject to the same requirements that apply to major sources in designated ozone nonattainment areas classified as Moderate.<sup>13</sup> Thus, the state must adopt rules to apply nonattainment new source review (NNSR) and reasonably available control technology (RACT) (pursuant to CAA section 182(b)(2)) provisions for major VOC sources statewide. Under CAA section 184(b)(2) states must also implement Stage II gasoline refueling vapor recovery programs, incremental to vehicle Onboard Refueling Vapor Recovery achievements, or measures that achieve comparable emissions reductions for both attainment and nonattainment areas.<sup>14</sup>

Section 182(f) of the CAA requires states to apply the same requirements to major stationary sources of NO<sub>x</sub> as are applied to major stationary sources of VOCs under subpart 2. Thus, the same NNSR and RACT requirements that apply to major stationary sources of VOC in the OTR also apply to major stationary sources of NO<sub>x</sub>.<sup>15</sup> CAA section 182(f) provides for a

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<sup>11</sup> We note that one exception to the statewide applicability of these control requirements applies to Virginia, as only a portion of that state is included within the OTR.

<sup>12</sup> In the OTR, enhanced vehicle inspection and maintenance programs are required in metropolitan statistical areas in the OTR with a 1990 Census population of 100,000 or more.

<sup>13</sup> Section 184(b)(2) of the CAA provides that, for purposes of implementing these requirements, a major stationary source shall be defined as any source that emits or has the potential to emit at least 50 tons per year of VOCs.

<sup>14</sup> See 72 FR 28772, May 16, 2012, Air Quality: Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver.

<sup>15</sup> See 57 FR 55622 (Nitrogen Oxides Supplement to the General Preamble, published November 25, 1992).

NO<sub>x</sub> waiver, or an exemption to the NO<sub>x</sub> requirements, where the Administrator determines that such NO<sub>x</sub> reductions would not contribute to the attainment of the NAAQS in an area. Areas granted a NO<sub>x</sub> waiver under CAA section 182(f) may be exempt from certain requirements of the EPA's motor vehicle I/M program regulations and from certain federal requirements of general and transportation conformity.<sup>16</sup>

*C. Legal Standard for this Action*

Section 176A(a)(2) of the CAA states that the Administrator may remove any state or portion of a state from the Ozone Transport Region whenever the Administrator has reason to believe that the control of emissions in that state or portion of that state pursuant to its inclusion in the transport region will not significantly contribute to the attainment of the standard in any area in the region. The provision does not provide further methodology or criteria for the Administrator to apply other than this language when determining whether to remove a state or portion of a state from the OTR. Therefore, the meaning of this language is ambiguous, and the EPA has the authority to exercise discretion in its expertise to interpret this language and identify relevant criteria and develop a reasonable methodology in doing so. *See, e.g., Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842-43 (1984); *Smiley v. Citibank*, 517 U.S. 735, 744-45 (1996). As explained in this action, in determining whether to grant the state of Maine's petition the EPA intends to draw upon its interpretations of the CAA's suite of interstate pollution transport provisions, taking into account any legal precedents established by prior EPA actions and associated court decisions.

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<sup>16</sup> As stated in the EPA's I/M (November 5, 1992; 57 FR 52950) and conformity rules (60 FR 57179 for transportation rules and 58 FR 63214 for general rules), certain NO<sub>x</sub> requirements in those rules do not apply where the EPA grants an areawide exemption under CAA section 182(f).



The EPA has never taken final action to remove any state or portion of a state from the OTR under section 176A(a)(2) of the CAA.<sup>17</sup> The Agency has in recent years acted pursuant to CAA section 176A(a)(1) to deny a request to expand the OTR,<sup>18</sup> but did not in that action have cause to interpret the operative language in CAA section 176A.<sup>19</sup>

Section 176A(a)(2) of the CAA does not expressly reference other statutory provisions, but the EPA believes it is appropriate to interpret the key terms in the section (i.e., “control of emissions . . . will not significantly contribute to the attainment of the standard” and “in any area in the region”) within the context of and consistently with other parts of the CAA that govern the interstate transport of ozone pollution, taking into account relevant facts and circumstances and the EPA’s past approaches to addressing interstate ozone transport.

The CAA provision that states and the EPA have primarily relied upon to address interstate pollution transport is section 110(a)(2)(D)(i)(I) of the CAA, often referred to as the “good neighbor” provision. The provision requires all states to submit SIPs that contain adequate provisions prohibiting any source or other type of emissions activity within the state from

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<sup>17</sup> On August 5, 2013, the EPA issued a proposed rule, “Approval and Promulgation of Air Quality Implementation Plans; Maine; Oxides of Nitrogen Exemption and Ozone Transport Restructuring” (78 FR 47253). In this notice, the EPA proposed to approve Maine’s request for a limited “restructuring” to remove the OTR-related VOC nonattainment new source requirements (NNSR), but the EPA did not take final action on this proposal.

<sup>18</sup> 82 FR 51238 (November 3, 2017).

<sup>19</sup> The EPA denied the request from several states in the OTR to add an additional nine states to the transport region on the basis that Congress’ use of the term “may” in CAA section 176A(a) granted the Administrator reasonable discretion in determining whether or not to grant the petition, and that other statutory authorities the EPA had historically relied upon to address interstate transport provided advantages over expanding the OTR. The D.C. Circuit upheld the EPA’s denial of the section 176A petition to expand the OTR, noting that its review of the EPA’s denial was “extremely limited and highly deferential,” and that even if petitioners had met CAA section 176A(a)(1)’s criterion for expanding the OTR, “the statute provides only that EPA ‘may’ expand the region, not that it ‘shall’ or ‘must’ do so.” *New York v. EPA*, 921 F.3d 257, 261-62 (D.C. Cir. 2019).

emitting any air pollutant in amounts which “will contribute significantly” to nonattainment in, or interfere with maintenance by, any other state with respect to any NAAQS. Thus, each state is required to submit a SIP that demonstrates the state is adequately controlling sources of emissions that would impact another states’ air quality relative to the NAAQS in violation of the good neighbor provision. However, if a state does not adequately address the good neighbor provision requirements in a SIP submission, the CAA requires that the EPA must address the requirements of the good neighbor provision in the state’s stead. Specifically, if the EPA disapproves a state’s SIP submission or if the EPA finds that a state has failed to submit a required SIP, then the EPA must promulgate a federal implementation plan (FIP) within two years, unless the state corrects the deficiency, and the EPA approves the plan or plan revision before the EPA promulgates a FIP.<sup>20</sup>

To address the regional transport of ozone pursuant to the CAA’s good neighbor provision, the EPA has promulgated four regional interstate transport rules focusing on the reduction of NO<sub>x</sub> emissions, as the primary meaningful precursor to address regional ozone transport across state boundaries, from certain sources located in states in the eastern half of the U.S.<sup>21,22</sup> The four interstate transport rulemakings are the NO<sub>x</sub> SIP Call,<sup>23</sup> Clean Air Interstate

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<sup>20</sup> CAA section 110(c)(1).

<sup>21</sup> For purposes of these rulemakings, the western U.S. (or the West) consists of the 11 western contiguous states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

<sup>22</sup> Two of these rulemakings also addressed the reduction of annual NO<sub>x</sub> and sulfur dioxide (SO<sub>2</sub>) emissions for the purposes of addressing the interstate transport of particulate matter pollution pursuant to the good neighbor provision.

<sup>23</sup> 62 FR 57356 (October 27, 1998).

Rule (CAIR),<sup>24</sup> the Cross-State Air Pollution Rule (CSAPR),<sup>25</sup> and the Cross-State Air Pollution Rule Update (CSAPR Update).<sup>26, 27</sup>

Through the development and implementation of CSAPR and the CSAPR Update, the EPA, working in partnership with the states, developed a four-step interstate transport framework to interpret and address the requirements of the good neighbor provision. The four steps are: (1) identifying downwind air quality monitors (known as “receptors”) that are expected to have problems attaining or maintaining clean air standards (i.e., NAAQS); (2) identifying upwind states that impact those downwind air quality problems sufficiently such that they are considered “linked” and therefore warrant further review and analysis; (3) identifying the emissions reductions necessary (if any), considering cost and air quality factors, to prevent linked upwind states identified in step 2 from contributing significantly to nonattainment or interfering with maintenance of the NAAQS at the locations of the downwind air quality problems; and (4) adopting permanent and enforceable measures needed to achieve those emissions reductions.

Given the use of the phrase “significantly contribute to [] attainment” in CAA section 176A(a)(2), the EPA believes it is reasonable to look to the 4-step interstate transport framework to guide its analysis of whether a state or portion of a state has met the necessary condition for removal from the OTR in CAA section 176A(a)(2). Under Step 1 of the interstate transport framework, the EPA has interpreted the term “will” in the phrase “will significantly contribute” in section 110(a)(2)(D)(i)(I) by looking at current downwind air quality problems and whether

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<sup>24</sup> 70 FR 25162 (May 12, 2005).

<sup>25</sup> 76 FR 48208 (August 8, 2011).

<sup>26</sup> 81 FR 74504 (October 26, 2016).

<sup>27</sup> In December of 2018, the EPA also promulgated a determination regarding remaining good neighbor obligations under the 2008 ozone NAAQS for the CSAPR region (referred to as the “CSAPR Close Out”) at 83 FR 65878, but that determination was vacated by the D.C. Circuit. *New York v. EPA*, No. 19-1019, Judgement at 4 (D.C. Circuit October 1, 2019).



those air quality problems will persist in a future year, i.e., by focusing its analysis regarding downwind interstate transport impacts on an analytic year in the future. In its transport rulemakings, the EPA has considered current monitored air quality data in addition to future projections “because ‘will’ can mean either certainty or indicate the future tense,” and considering present-day data to inform the projected identification of downwind air quality problems “give[s] effect to both interpretations of the word.” *North Carolina v. EPA*, 531 F.3d 896, 913-14 (D.C. Cir. 2008). *See* 63 FR 57356, 57375 (Oct. 27, 1998) (NO<sub>x</sub> SIP Call) (relying on both monitored and modeled data); 70 FR 25162, 25241 (May 12, 2005) (CAIR); 81 FR 74504, 74517 (October 26, 2016) (CSAPR Update).<sup>28</sup> Specifically, in those rules, the EPA explained that it had the most confidence in its projections of nonattainment for those counties that also measure nonattainment for the most recent period of available ambient data. 81 FR 74517, 74531. In the CSAPR Update, receptors that had clean measured data but were projected to have nonattainment problems in the future-year modeling were denoted by the EPA as maintenance-only receptors, acknowledging that while currently attaining the NAAQS, such areas could violate the standard in the future under certain meteorological conditions. The D.C. Circuit has upheld this balance struck by the EPA in considering historical monitored data as well as future projected modeled data as a method for identifying downwind air quality problems at Step 1. *See, e.g., Wisconsin v. EPA*, 938 F.3d 303, 326 (D.C. Cir. 2019).

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<sup>28</sup> The EPA did not consider current monitored data in conjunction with modeled projections of air quality in a future year in CSAPR because the most recent monitoring data prior to CSAPR’s promulgation reflected effects of the unlawful CAIR. 76 FR 48208, 48230 (August 8, 2011).

In CSAPR and the CSAPR Update, the EPA used a threshold of one percent of the NAAQS to determine whether a given upwind state was “linked” at step 2 of the four-step interstate transport framework and would, therefore, contribute to downwind nonattainment and maintenance sites identified in step 1. If a state’s impact did not equal or exceed the one percent threshold, the upwind state was not “linked” to a downwind air quality problem, and the EPA therefore concluded that the state will not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state’s impact equaled or exceeded the one percent threshold, the state’s emissions were further evaluated in step 3, taking into account both air quality and cost considerations, to determine what, if any, emissions reductions might be necessary to address the good neighbor provision.

In this action, these first two steps of the 4-step interstate transport framework are particularly informative to analyze the standard for removal of areas from the OTR established by CAA section 176A(a)(2). We acknowledge that the specific inquiry posed by the OTR removal provision does not perfectly align with the inquiry in the CAA section 110 good neighbor provision or in CAA section 176A(a)(1). Read literally, rather than identify significant contribution *of emissions* to nonattainment or maintenance receptors—that is, determining whether a state’s emissions are large enough that they negatively impact air quality in another state and thus may warrant the imposition of control measures—CAA section 176A(a)(2) presents a different but related question: whether OTR *controls* in a state will not significantly contribute to *attainment* anywhere in the OTR. Despite the framing of CAA section 176A(a)(2) as significant contribution to attainment rather than significant contribution to nonattainment, we think CAA section 176A(a)(2) is best read within the context of the statutory section as a whole, and in conjunction with the other CAA provisions addressing interstate pollution transport, and

therefore focused on impacts to areas that are struggling with attaining or maintaining the NAAQS. We acknowledge that one could read CAA section 176A(a)(2) as asking the EPA to only analyze OTR areas that are already in attainment and determine whether such areas would remain so after the removal of a state or portion of a state from the OTR per CAA section 176A(a)(2).<sup>29</sup>

However, we think a better interpretation of CAA section 176A(a)(2) is that it is establishing a standard that is the inverse of the question presented in CAA section 176A(a)(1). At base, CAA section 176A(a) presents two authorities—the Administrator may add a state or a portion of a state to the transport region whenever the Administrator has reason to believe that pollutants from that state significantly contribute to a violation of the NAAQS in the transport region and may remove a state or a portion of a state whenever the Administrator has reason to believe that the state’s continued inclusion in the OTR will not be required for attainment in the transport region, i.e., that the petitioning state is not significantly contributing to air quality problems in the region and *will not* so contribute if the state is removed from the OTR. Interpreting the statute in this way means that under CAA section 176A(a)(2), although there is no explicit reference to significant contribution to nonattainment or maintenance, the EPA’s inquiry focuses on whether the state, or portion of the state, to be removed is significantly contributing or will contribute to nonattainment of the standard in the OTR. This inquiry, therefore, does not solely focus on consequences to areas that are already in attainment.

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<sup>29</sup> We note that this interpretation would not address whether the reductions achieved by OTR controls in a state are also effective at ameliorating air quality in areas that are in nonattainment. In addition, it would require the EPA to establish an entirely new framework to analyze how emissions control measures “significantly contribute” to attainment—a standard that would not necessarily be equivalent to or in harmony with the “significant contribution” standard of CAA section 110(a)(2)(D)(i)(I).

In determining whether removal is warranted under section 176A(a)(2), the EPA must also interpret the phrase “control of emissions in that state or portion of that state pursuant to this section.” The EPA proposes that “controls” refers to new controls that would be required under CAA section 184(b) if the state or portion of the state were to remain in the OTR, as opposed to controls that the state has already adopted as required by the CAA due to its inclusion in the OTR. We believe interpreting “controls” in this manner gives effect to the forward-looking nature of the provision, which asks the Administrator to analyze whether removal of the state or portion of the state from the OTR “will” have the effect of contributing to air quality problems in any area in the OTR. In undertaking that forward-looking analysis, we think it is reasonable to assume that existing, SIP-approved controls that were adopted by the state due to its inclusion in the OTR will remain in place. Under the CAA, a state seeking to revise its SIP must undergo a section 110(l) demonstration. Section 110(l) of the CAA states that the Administrator cannot approve a SIP revision if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (RFP), or any other applicable requirement of the CAA. Therefore, the EPA will only approve a SIP revision that removes or modifies control measures after the state has demonstrated that such removal or modification will not interfere with attainment of the NAAQS, Rate of Progress (ROP), RFP or any other applicable requirement of the CAA.

States may demonstrate a revision’s noninterference with NAAQS-related requirements by substituting one measure with another that achieves equivalent or greater emissions reductions or air quality benefit or by preparing an air quality analysis showing that removing the measure will not interfere with other applicable requirements (i.e., without a substitute

measure).<sup>30</sup> Additionally, for areas that do not have an attainment demonstration, the EPA would consider alternative analyses to demonstrate noninterference on a case-by-case basis. The level of rigor in the alternative demonstration would vary depending on the nature of the requirement, its potential impact on air quality in the area, and the air quality of the area in which the requirement applies.

Moreover, this interpretation of CAA section 176A(a)(2) is consistent with the EPA's treatment of nonattainment areas seeking redesignation to attainment under CAA section 107(d)(3). States seeking redesignation of a nonattainment area to attainment are required to demonstrate that the area will maintain the NAAQS, per CAA section 107(d)(3)(E)(iv) and CAA section 175A. In making demonstrations of maintenance, states perform air quality modeling or emissions projections showing that *existing* control requirements are sufficient to maintain the NAAQS in question. However, once redesignated, a state may seek revision of its SIP to remove nonattainment SIP measures that are not necessary to maintain the NAAQS, subject to a section 110(l) demonstration.<sup>31</sup> We, therefore, think the analysis under CAA section 176A(a)(2) should, like a CAA section 175A maintenance demonstration, assume continued implementation of existing OTR-control measures even though such measures would no longer be statutorily mandated once the EPA removes a state or portion of the state from the OTR. As in the case of an area redesignated to attainment, a state could only stop actively implementing those measures and remove them from its SIP after satisfying its obligation under section 110(l), as discussed

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<sup>30</sup> 78 FR 68378, 68382 (November 14, 2013).

<sup>31</sup> Per CAA section 175A(d) and the EPA's longstanding guidance, control measures that the state shows are no longer necessary for maintenance of the NAAQS must be retained as contingency provisions in the maintenance plan, to be implemented in the event of a subsequent violation of the NAAQS. *See* Procedures for Processing Requests to Redesignate Areas to Attainment, September 4, 1992.

earlier. We note that in submitting its petition to the EPA to remove portions of the state from the OTR, Maine committed to retaining all existing OTR control measures in its SIP.

To establish the proper geographic scope of the EPA’s CAA section 176A(a)(2) “significant contribution” analysis, another phrase in the provision must be interpreted: “any area in the region.” The EPA proposes to interpret the phrase “any area in the region” to mean all existing areas in the OTR, including areas within the petitioning state. Here, this would include all areas of Maine, because the entire state is included in the OTR as established under section 184. However, we recognize that it is possible that Congress intended the EPA to focus primarily on *interstate* impacts within the OTR, rather than impacts within the petitioning state. Therefore, the Agency is requesting comment on this alternative interpretation, as set forth in more detail below.

Read literally, “any” is a broad term that, in this context, encompasses areas within the petitioning state because they are currently in the OTR. However, case law recognizes that “‘any’ means different things depending upon the setting.” *Nixon v. Missouri Municipal League*, 541 U.S. 125, 132 (2004); *see also Small v. U.S.*, 544 U.S. 385, 388 (2005) (“The word ‘any’ considered alone cannot answer [the] question”). Here, aspects of the statutory structure and context indicate that “any” may reasonably be interpreted to have a narrower scope than all areas of the current OTR. For instance, it could be relevant that the provision at issue is part of CAA section 176A, which is titled, “Interstate Transport Commissions,” and the provision at issue is located within the subsection entitled “Authority to Establish Interstate Transport Regions.” The basis under CAA section 176A(a) for creating or expanding a transport region is the *interstate* effects of air pollution. Further, under the CAA’s cooperative federalism scheme, states retain the primary regulatory role in developing and implementing the necessary emissions reductions

within their borders to meet the air quality standards established by the EPA. *See* CAA section 101(a)(3). If a state’s removal from the OTR were projected to have negative impacts on other areas within the state, under the CAA that state would retain jurisdiction, authority, and responsibility to address such air quality problems in the first instance. *See, e.g.*, CAA sections 110, 172, 181, and 182. Rejecting a state’s petition to be removed from the OTR solely on the basis of intrastate impacts could be seen as going beyond the purpose of CAA section 176A, which was promulgated to address the interstate effects of air pollution, i.e., a problem in which affected states might otherwise have no recourse.

Nonetheless, it is also possible that Congress envisioned that the grounds for removing an area from the OTR should require a different bar (i.e., a demonstration that removal would not cause air quality problems in other states *and* in one’s own state) than the conditions for adding a new area to a transport region (which are limited to out-of-state impacts). This broader reading of the term “any” in this context also comports with the overall public health and welfare purposes of the CAA. In this action, as explained below, under either interpretation, the EPA proposes that Maine’s petition may be granted, because its own emissions’ impact on itself do not—and are not expected to if the petition is granted—contribute to ozone NAAQS attainment problems within the state. Therefore, we propose to apply the broader interpretation, wherein “any area of the region” encompasses all current areas of the OTR, including the state of Maine. We request comment on both interpretations of the phrase “any area of the region.”

Turning back to the provision as a whole, informed by the backdrop and context of other CAA provisions addressing interstate pollution transport and the states’ and the EPA’s actions addressing those provisions, we think it is reasonable to interpret CAA section 176A(a)(2) in a manner consistent with EPA’s 4-step interstate transport framework, and in particular here, Steps

1 and 2. Under this interpretation, the EPA determines whether air quality problems exist in the transport region (including the state or area of a state petitioned to be removed) based on projected air quality modeling and also current monitored data. If so, the EPA then determines whether the state (or portion of a state) to be removed from the OTR is contributing less than one percent of the NAAQS to those problems, indicating that the state (or portion of a state) is not significantly contributing to air quality problems in the OTR, and that additional OTR controls in that state (or portion of that state) and continued OTR membership are, therefore, unnecessary for attainment of the NAAQS in the OTR. Applying that framework to the question presented by CAA section 176A(a)(2), we think a reasonable interpretation requires the Administrator to identify whether there are ambient air monitoring sites in the OTR that either are projected to be in nonattainment based on modeling data, or potentially struggle with maintenance or are currently violating the NAAQS based on monitored data, and whether the area petitioned to be removed from the transport region contributes below one percent of the NAAQS to those monitors.

*D. Previous Actions*

Consistent with the 1990 CAA Amendments, nine Maine counties were designated as nonattainment of the now-revoked 1979 1-hour NAAQS (0.12 parts per million (ppm)). York, Cumberland, Sagadahoc, Androscoggin, Kennebec, Knox, and Lincoln Counties were classified as Moderate nonattainment areas. Waldo and Hancock Counties were classified as Marginal nonattainment areas.

Maine had two nonattainment areas under the now-revoked 1997 8-hour ozone standard. The Portland Ozone Nonattainment area consisted of 56 cities and towns in York, Cumberland, and Sagadahoc Counties, along with the town of Durham in Androscoggin County, and was



classified as Marginal for the 1997 ozone standard. The Hancock, Knox, Lincoln, and Waldo Counties Ozone Nonattainment Area (also known as the Midcoast area) consisted of 55 coastal towns and islands in Hancock, Knox, Lincoln, and Waldo counties and was designated as nonattainment under Subpart 1 for the 8-hour ozone standard. Maine was designated “Attainment/Unclassifiable” statewide for both the 2008 and 2015 8-hour ozone standards of 0.075 ppm and 0.070 ppm, respectively.

As previously discussed, Section 184(b) of the CAA established certain control requirements that each state in the OTR is required to implement within the state. Section 182(f) of the CAA Amendments allows for the suspension of the OTR stationary source NO<sub>x</sub> requirements based on a demonstration that additional NO<sub>x</sub> reductions would not produce net ozone air quality benefits in the OTR. Maine has petitioned for and has been granted the following CAA section 182(f) NO<sub>x</sub> waivers.

On December 26, 1995 (60 FR 66748), the EPA approved an exemption request for the Northern Maine area from CAA section 182(f) NO<sub>x</sub> requirements. This action exempted the Oxford, Franklin, Somerset, Piscataquis, Penobscot, Washington, Aroostook, Hancock and Waldo counties from the requirements to implement NO<sub>x</sub> control measures for existing stationary sources, NNSR for new sources and modifications that are major for NO<sub>x</sub>, NO<sub>x</sub> RACT requirements, the NO<sub>x</sub>-related general conformity provisions, and the NO<sub>x</sub>-related transportation conformity provisions now contained in 40 CFR 93.119.<sup>32</sup>

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<sup>32</sup> Transportation and general conformity requirements only apply in nonattainment areas and areas redesignated to attainment with an approved CAA section 175A maintenance plan. *See* CAA section 176(c)(5). Transportation and general conformity do not apply in attainment areas in the OTR.

On February 3, 2006 (71 FR 5791), the EPA approved a request for an exemption for a similar area in northern Maine (specifically Aroostook, Franklin, Oxford, Penobscot, Piscataquis, Somerset, Washington, and portions of Hancock and Waldo Counties) under the 1997 ozone standard.

On July 29, 2014 (78 FR 43945), the EPA approved the state of Maine's request for an exemption from the NO<sub>x</sub> requirements contained in section 182(f) of the CAA for the entire state of Maine for the 2008 ozone standard. The CAA does not provide a similar VOC waiver process, and major stationary sources of VOC remain subject to NNSR and RACT requirements throughout the entire state of Maine.

In addition to the NO<sub>x</sub> waivers under CAA section 182(f), Maine requested and was granted an OTR restructuring with respect to enhanced I/M requirements.<sup>33</sup> (66 FR 1873; January 10, 2001). While the Maine I/M rule did not meet all requirements of the EPA's final rule for enhanced I/M, the EPA determined that the implementation of an enhanced I/M program in Maine in place of the approved Maine I/M rule would not significantly contribute to attainment in any other state in the OTR.

#### **IV. Maine CAA Section 176A Petition**

##### *A. Summary of the Maine CAA Section 176A Petition*

On February 24, 2020, the state of Maine petitioned the EPA pursuant to CAA section 176A(a)(2) for the removal of the state of Maine from the OTR with the exception of the 111 towns and cities listed in Table 1 comprising the Portland and Midcoast Ozone Areas.

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<sup>33</sup> The EPA's I/M rule was established on November 5, 1992 (57 FR 52950). The EPA made significant revisions to the I/M rule on September 18, 1995 (60 FR 48035) and on July 25, 1996 (61 FR 39036). Maine is subject to the requirements of the Act for an I/M program in the Portland, Maine area.

**Table 1. Maine Towns and Cities to Remain in the Ozone Transport Region**

<b>Androscoggin County (includes only the following town):</b> Durham
<b>Cumberland County (includes only the following towns and cities):</b> Brunswick, Cape Elizabeth, Casco, Cumberland, Falmouth, Freeport, Frye Island, Gorham, Gray, Harpswell, Long Island, New Gloucester, North Yarmouth, Portland, Pownal, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham, and Yarmouth
<b>Hancock County (includes only the following towns and cities):</b> Bar Harbor, Blue Hill, Brooklin, Brooksville, Cranberry Isles, Deer Isle, Frenchboro, Gouldsboro, Hancock, Lamoine, Mount Desert, Sedwick, Sorrento, Southwest Harbor, Stonington, Sullivan, Surry, Swans Island, Tremont, Trenton, and Winter Harbor
<b>Knox County (includes only the following towns and cities):</b> Camden, Criedhaven, Cushing, Friendship, Isle au Haut, Matinicus Isle, Muscle Ridge Shoals, North Haven, Owls Head, Rockland, Rockport, St. George, South Thomaston, Thomaston, Vinalhaven, and Warren
<b>Lincoln County (includes only the following towns and cities):</b> Alna, Boothbay, Boothbay Harbor, Breman, Bristol, Damariscotta, Dresden, Edgecomb, Monhegan, Newcastle, Nobleboro, South Bristol, Southport, Waldoboro, Westport, and Wiscasset
<b>Sagadahoc County (includes all towns and cities)</b>
<b>Waldo County (includes only the following town):</b> Islesboro
<b>York County (includes only the following towns and cities):</b> Alfred, Arundel, Berwick, Biddeford, Buxton, Dayton, Eliot, Hollis, Kennebunk, Kennebunkport, Kittery, Limington, Lyman, North Berwick, Ogunquit, Old Orchard Beach, Saco, Sanford, South Berwick, Wells, and York

The Maine Department of Environmental Protection (Maine DEP) provided an analysis purporting to demonstrate that Maine’s emissions are an insignificant contributor to the nonattainment for the 8-hour ozone NAAQS in other states and in those areas in Maine that will remain in the OTR. Maine’s analysis consists of modeling “back trajectories” for ozone exceedance days in the 2016-2018 period recorded at monitoring locations in southern New England and in Maine, EPA source-apportionment modeling results, and emissions-inventory

data for Maine and the OTR.<sup>34</sup> The EPA's assessment of the CAA section 176A petition is discussed in Section V.

*B. Provisions impacted by the Maine CAA Section 176A Petition*

If the EPA takes final action granting Maine's petition, the following consequences would result. First, for areas to be removed from the OTR, different requirements would become applicable under the New Source Review (NSR) construction permitting program. In these areas, Maine's minor NSR and Prevention of Significant Deterioration (PSD) permitting programs would apply to ozone (NO<sub>x</sub> and VOC) in lieu of the Nonattainment New Source Review (NNSR) permitting requirements that currently apply. However, the areas remaining in the OTR would continue to be subject to the NNSR permitting requirements. In addition, Maine could alter the geographic applicability of its motor vehicle I/M program through a SIP revision. Such a change would only have a minimal impact as the majority of the counties will remain within the OTR.<sup>35</sup> Regarding stage II refueling vapor recovery programs for motor vehicles, granting Maine's petition would not impact emissions because the EPA previously approved the state's request to decommission the program, under the reasoning that emissions reductions resulting from the program are now accomplished with on-board vapor recovery equipment installed at the time of vehicle manufacture.<sup>36</sup> Finally, upon approval of Maine's petition, only the portion of the state remaining in the OTR would be required to adopt ozone RACT requirements. However,

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<sup>34</sup> Back trajectory analyses use interpolated measured or modeled meteorological fields to estimate the most likely central path over geographical areas that an air parcel travels before reaching a specific location at a given time.

<sup>35</sup> The six towns within Cumberland county that are part of the petition contain only five percent of the county's population.

<sup>36</sup> See FR 82 32480 (July 14, 2017).

RACT requirements already adopted in Maine's SIP could only be removed if the state submitted a SIP revision and satisfies the CAA's anti-backsliding provisions of section 110(l).

In the February 24, 2020, petition to remove areas of the state from the OTR, Maine confirmed that no current control requirements in the SIP will be relaxed as a result of the petition request. To date, Maine has not submitted any SIP revisions to modify current OTR control requirements and should the EPA grant final approval of Maine's petition, this would not in itself have the effect of revising Maine's existing SIP requirements. A more detailed discussion of the changes follows.

*i. NSR*

The NSR provisions of the CAA are a combination of air quality planning and air pollution control technology provisions that require stationary sources of air pollution to obtain permits before they are first constructed or engage in a modification of an existing facility. Part C of title I of the CAA contains the PSD program, which reflects the requirements for the preconstruction review and permitting of new and modified major stationary sources of air pollution (specifically, sources emitting specific amounts of regulated NSR pollutants) located in areas meeting the NAAQS ("attainment" areas) and, areas for which there is insufficient information to classify an area as either attainment or nonattainment ("unclassifiable" areas). Under the PSD program, new major stationary sources and major modifications of existing sources must apply best available control technology (BACT) for each regulated NSR pollutant emitted above specific thresholds and conduct an air quality analysis to demonstrate that the proposed source will not cause or contribute to a violation of any NAAQS or PSD increment.<sup>37</sup>

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<sup>37</sup> See CAA section 165(a).

Part D of title I of the CAA contains the NNSR program, reflecting the requirements for the preconstruction review and permitting of new and modified major stationary sources of air pollution locating in areas designated as not meeting the NAAQS (“nonattainment” areas). Under the NNSR program, new major sources and major modifications of existing sources in a nonattainment area must apply control technology that meets the statutory definition of Lowest Achievable Emissions Rate (LAER) and must obtain emissions reductions from existing sources to offset the emissions increase from the new or modified source and ensure that the emissions increase will not interfere with a state’s reasonable further progress toward attainment of the NAAQS.<sup>38</sup>

The permit program for non-major sources and minor modifications to major and non-major sources is known as the minor NSR program. CAA section 110(a)(2)(C) requires states to develop a permitting program to regulate the construction and modification of any stationary source “as necessary to assure that [NAAQS] are achieved.”

To comply with the requirements of the CAA and the NSR implementing regulations at 40 CFR 51.160 through 51.166, most states have EPA-approved SIPs in place to implement the PSD, NNSR, and minor NSR preconstruction permit programs. The state of Maine implements its NSR program requirements through 06-096 Code of Maine Regulations (CMR) in Chapter 100 (Definitions Regulation), Chapter 113 (Growth Offset Regulation), and Chapter 115 (Major and Minor Source Air Emission License Regulations). The EPA first approved Maine’s NSR program regulations as part of the state’s SIP on January 30, 1980 (45 FR 6784).<sup>39</sup> Together, Maine’s PSD, NNSR, and minor NSR permitting programs ensure that construction of new and

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<sup>38</sup> See CAA section 173(a) and (c).

<sup>39</sup> The EPA last approved revisions to the program on August 1, 2016 (81 FR 50353).

modified stationary sources of air pollutant emissions do not significantly deteriorate air quality in “clean areas,” impede reasonable further progress in nonattainment areas, or interfere with maintenance of any NAAQS.

The applicability of the PSD, NNSR or minor NSR programs to a stationary source must be determined in advance of construction and is a pollutant-specific determination. Thus, a stationary source may be subject to PSD for certain pollutants, NNSR for some pollutants and minor NSR for others after assessing the quantity of emissions, the regulated NSR pollutants emitted and the area’s attainment status.

Pursuant to Maine’s NNSR program, sources with a potential to emit equal to or greater than 100 tons per year of NO<sub>x</sub> or 50 tons per year of VOC qualify as major stationary sources.<sup>40</sup> New major stationary sources are subject to NNSR permitting requirements, including LAER and emissions offsets, for any pollutant (i.e., NO<sub>x</sub> or VOC) which the source has the a potential to emit in amounts equal to or greater than the respective major source threshold. For existing major stationary sources in Maine, NNSR permitting requirements apply to construction projects that would result in a significant net emissions increase of NO<sub>x</sub> or VOC, defined as an increase equal to or greater than 40 tons per year for either NO<sub>x</sub> or VOC. Such projects qualify as a major modification at an existing major stationary source.

The CAA requires PSD programs to apply to any major emitting facility, defined as a stationary source that emits, or has a potential to emit, at least 100 tpy of a regulated NSR pollutant, if the source is in one of 28 listed source categories, or, if the source is not, then at

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<sup>40</sup> Lower applicability thresholds apply for NO<sub>x</sub> and VOC in areas designated as Serious, Severe, and extreme nonattainment for a particular ozone standard. However, currently, no areas in Maine are classified as such, nor are any areas subject to lower thresholds as a result of prior NAAQS nonattainment status.

least 250 tpy of a regulated NSR pollutant. *See* 42 USC 7479(1); 40 CFR 51.166(b)(1); and 40 CFR 52.21(b)(1). Maine's PSD program is more stringent than the federal program in that it sets the major stationary source threshold (for purposes of determining applicability to PSD permit requirements) at 100 tpy of a regulated NSR pollutant regardless of source category. *See* Chapter 100 (125)(B). New major stationary sources are subject to PSD permitting requirements, including BACT and air quality impacts analysis, for *any* regulated NSR pollutant that the source has the potential to emit in an amount equal to or greater than pollutant-specific significant emissions rates contained in the regulations. For both NO<sub>x</sub> and VOC, the significant emissions rate under PSD is 40 tons per year. Because the OTR is treated as moderate nonattainment for ozone, the precursors NO<sub>x</sub> and VOC are not currently subject to PSD permitting requirements in Maine.<sup>41</sup> *See* 40 CFR 51.166(i)(2).

Maine's minor NSR program regulates construction activities and resulting emissions at some new and existing sources not subject to NNSR or PSD. The emissions threshold for minor NSR applicability is 10 pounds per hour or 100 pounds per day.<sup>42</sup> The applicable control technology standard under Maine's minor NSR program is BACT, which uses the same definition of BACT as the state's PSD-program regulations. Thus, in Maine, BACT must be applied by all new major stationary sources and major modifications under the PSD program and to new non-major sources and minor modifications at both major and non-major sources under

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<sup>41</sup> Because NO<sub>x</sub> is also a regulated NSR pollutant corresponding to the NO<sub>2</sub> NAAQS, under the current OTR status in Maine, new major sources and major modifications can be subject to both NNSR (for NO<sub>x</sub> as an ozone precursor) and PSD (for NO<sub>2</sub>, measured as total NO<sub>x</sub> for applicability purposes). In general, this means that in addition to LAER and emission offsets, the source would also be required to demonstrate that their significant emissions of NO<sub>x</sub> would not cause or contribute to a violation of the NO<sub>2</sub> NAAQS or PSD increments.

<sup>42</sup> Maine's minor NSR program also contains applicability thresholds for fuel burning devices, i.e., boilers and engines, and applicability of the minor source program for these devices is determined based on maximum heat input.



the state's minor NSR program. Under the definition in both programs, BACT is an emissions limitation based on the maximum degree of control that can be achieved for a particular pollutant taking into account energy, environmental, and economic impacts. BACT can be add-on control equipment or a design, equipment, work practice, or operational standard if imposition of an emissions standard is infeasible.

The applicable control technology standard under Maine's NNSR program is the Lowest Achievable Emissions Rate (LAER). With regard to NO<sub>x</sub> and VOC, LAER is applicable to new major stationary sources and major modifications because of the state's current inclusion in the OTR (even though all areas in Maine are designated attainment or unclassifiable for ozone). Maine defines LAER within Chapter 100 as meaning the more stringent rate of emissions based on the following:

The most stringent emission limitation which is contained in the implementation plan of any State for that class or category of source, unless the owner or operator of the proposed source demonstrates that those limitations are not achievable; or

The most stringent emission limitation which is achieved in practice by that class or category of source, whichever is more stringent. In no event may LAER result in emission of any pollutant in excess of those standards and limitations promulgated pursuant to CAA section 111 or 112, or any emission standard established by the Maine Department of Environmental Protection.<sup>43</sup>

Because of Maine's location in the OTR, LAER is currently required if emissions of NO<sub>x</sub> or VOC from a project at a major source exceed Maine's NNSR applicability thresholds, and BACT is required if project emissions are below those thresholds but above the state's minor

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<sup>43</sup> See Chapter 100 section (78), definition of LAER.

NSR thresholds. One result of granting Maine's petition to remove some portions of the state from the OTR is that PSD will apply to major sources and BACT will be required for NO<sub>x</sub> and VOC emissions in all NSR permitting actions (major and minor) for sources located in those areas removed from the OTR. However, existing LAER requirements contained in existing permits located in areas that would no longer be part of the OTR (i.e., in final permits issued prior to the effective date of Maine's petition, should it be granted) would remain in effect. In addition to LAER, another requirement that is unique to NNSR is the requirement for new major sources and major modifications at existing sources to secure offsetting emissions reductions. Such emissions offsets must be obtained from "the same source or other sources in the same nonattainment area," except that the state may allow emissions offsets derived from another nonattainment area if "(A) the other area has an equal or higher nonattainment classification than the area in which the source is located and (B) emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located." 42 U.S.C. 7502(c). For ozone, the CAA requires that the amount of emissions offsets obtained increase with the severity of the area's nonattainment status. Areas within the OTR are treated as "moderate." Thus, the emissions offsets that must be obtained in Maine is calculated by applying a ratio of 1.15 to 1 for NO<sub>x</sub> and VOC.<sup>44</sup>

If the EPA grants Maine's petition to remove parts of the state from the OTR, new stationary sources locating in the affected area would be subject to PSD for NO<sub>x</sub> and VOC if the source is major under Maine's definition by virtue of it having a potential to emit 100 tons per year or more of any regulated NSR pollutant and 40 tons per year or more of NO<sub>x</sub> and VOCs. If triggered, PSD permitting requirements for NO<sub>x</sub> and/or VOC would include the application of

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<sup>44</sup> Chapter 113 section (3)(E)(1)(c)(ii).

BACT and a demonstration that the allowable emissions increase(s) would not cause or contribute to a violation of the ozone NAAQS. Modifications at existing major stationary sources that result in an increase of 40 tons per year or more of NO<sub>x</sub> or VOC by itself and on a net basis would be subject to the same PSD permitting requirements. New non-major sources and minor modifications at existing sources (major and non-major) would be subject to the minor NSR permitting requirements for NO<sub>x</sub> and/or VOC, including BACT, if emissions exceed the applicable minor NSR thresholds discussed previously.

Based on the foregoing, if the EPA finalizes its proposal to grant Maine's petition, some sources and modifications located in the part of the state no longer in the OTR would be subject to BACT instead of LAER for NO<sub>x</sub> and VOC. While there are not always significant differences between the level of control determined under BACT and LAER, BACT determinations must consider factors, such as energy, environmental, and economic impacts and other costs, that are not considered for LAER determinations. Because of differences between BACT and LAER, in individual determinations, it is not necessarily the case that LAER is always more stringent than BACT.

Some sources previously required to obtain emissions offsets under the NNSR program would not be required to do so under the PSD or minor NSR program. While the NNSR emissions offsets requirement would no longer apply in the portion of the state to be removed from the OTR, under PSD, new major stationary sources and major modifications would be required to demonstrate that proposed emissions increases will not cause or contribute to a violation of the ozone NAAQS. For projects subject to minor NSR, Maine's minor NSR program also requires at Chapter 115 section (7)(C)(1) air quality impact analyses of NO<sub>x</sub> for new minor sources and minor modifications at existing sources if emissions exceed 50 tons per year of NO<sub>x</sub>.

Maine also has discretionary authority to require an ambient air quality analysis for sources that emit less 50 tons per year of NO<sub>x</sub> (*see* Chapter 115 subsection (7)(B)(3)).

Procedurally, granting Maine's petition would not materially alter opportunities for public involvement, as Maine's PSD and NNSR pre-construction regulations contain procedures for the opportunity for public participation in the permitting process whether a stationary source is subject to minor NSR, PSD, or NNSR permitting regulations.

*ii. Maine I/M Program*

Section 184(b)(1)(A) of the Act requires certain areas in the OTR to adopt and implement an inspection and maintenance program meeting EPA's enhanced I/M performance standard. The EPA's I/M rule was established on November 5, 1992 (57 FR 52950). The EPA made significant revisions to the I/M rule on September 18, 1995 (60 FR 48035) and on July 25, 1996 (61 FR 39036). The I/M regulation was codified at 40 CFR part 51, subpart S, and requires States subject to the I/M requirement to submit an I/M SIP revision that includes all necessary legal authority and the items specified in 40 CFR 51.350 through 51.373. Maine is subject to the OTR requirements for a vehicle I/M program in the Portland, Maine area.

Maine's I/M program provides for the implementation of I/M in Maine's Cumberland County, which includes the Portland area, beginning on January 1, 1999. Maine implemented an annual, test and repair I/M program, which the state designed to meet the requirements of the EPA's performance standard and other requirements contained in the federal I/M rule. Testing is overseen by the Department of Public Safety (DPS) and implemented by individual garages in the existing safety inspection network. Aspects of the Maine I/M program include: antitampering testing for catalytic converters on 1983 and newer light duty vehicles and trucks, gas cap pressure testing on 1974 and newer vehicles, and On-Board Diagnostic (OBD2) checks

(beginning in January 2000), enforcement by the existing windshield safety inspection stickers, requirements for testing convenience, quality assurance, data collection, no cost waivers, reporting, test equipment and test procedure specifications, public information and consumer protection, inspector training and certification, penalties against inspectors which perform faulty inspections, and emissions recall enforcement. However, Maine did not meet the enhanced I/M requirements due to the lack of a required registration-based enforcement program. The EPA determined that even though Maine's I/M program did not meet the requirements for the EPA's enhanced I/M program, the program contributes to air quality improvement. The EPA also determined that an enhanced I/M program in Maine would not significantly contribute to the attainment of the 1-hour ozone standard anywhere in the OTR. (66 FR 1871, January 10, 2001). If the EPA grants Maine's 176A petition, the impacts on Maine's I/M program would likely be minimal. Cumberland County is the only county in Maine with an I/M program, and, as noted previously, only six towns in Cumberland County are included in the portion of the state requesting to opt out of the OTR, and those six towns contain only five percent of the county's population. Even if the state were to request to remove I/M requirements for those six towns in the future, subject to CAA section 110(l), the majority of Cumberland County would remain in the OTR and will continue to implement Maine's existing I/M program.

*iii. Stage II Refueling Vapor Recovery*

Stage II refueling vapor recovery systems and vehicle onboard refueling vapor recovery (ORVR) systems were initially both required by the 1990 Amendments to the CAA. Section 182(b)(3) requires ozone nonattainment areas classified Moderate and above to implement Stage II refueling vapor recovery programs. Under CAA section 184(b)(2), states in the OTR were also

required to implement Stage II or comparable measures. CAA section 202(a)(6) required EPA to promulgate regulations for ORVR for light duty vehicles (passenger cars).<sup>45</sup>

Maine's SIP approved Stage II program requirements were codified in Maine's Chapter 118, Gasoline Dispensing Facilities Vapor Control.<sup>46</sup> Maine's rule required gasoline dispensing facilities located in the counties of York, Cumberland, and Sagadahoc to install Stage II vapor recovery systems. With the widespread use of ORVR, Maine's revised Chapter 118 decommissioning Stage II vapor recovery requirements was approved into the SIP. (82 FR 32480, July 14, 2017). EPA's proposed grant of Maine's 176A petition would have no impact on Stage II requirements due to the decommissioning of the program in Maine.

*iv. RACT*

Sections 182(b)(2) and 184(b)(1)(B) of the CAA require states with ozone nonattainment areas that are classified as Moderate or above, as well as areas in the OTR, to submit a SIP revision requiring the implementation of RACT for sources covered by a control techniques guideline (CTG) and for all major sources of VOCs and NO<sub>x</sub>. A CTG is a document issued by the EPA which establishes a "presumptive norm" for RACT for a specific VOC source category. RACT is defined as the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering

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<sup>45</sup>The EPA adopted these requirements in 1994. ORVR equipment has been phased in for new passenger vehicles beginning with model year 1998 and starting with model year 2001 for light-duty trucks and most heavy-duty gasoline powered vehicles. ORVR equipment has been installed on nearly all new gasoline- powered light-duty vehicles, light-duty trucks, and heavy-duty vehicles since 2006. During the phase-in of ORVR controls, Stage II provided volatile organic compound (VOC) reductions in ozone nonattainment areas and certain attainment areas of the OTR. Congress recognized that ORVR systems and Stage II vapor recovery systems would eventually become largely redundant technologies and provided authority to the EPA to allow states to remove Stage II vapor recovery programs from their SIPs after the EPA finds that ORVR is in "widespread use."

<sup>46</sup>(61 FR 53636, October 15, 1996)

technological and economic feasibility. The CTGs usually identify a particular control level, which the EPA recommends as being RACT. States in the OTR are required to address RACT for the source categories covered by CTGs through adoption of rules as part of the SIP, and they are also required to adopt RACT for major sources of VOCs (50 tpy) and major sources of NO<sub>x</sub> (100 tpy) even if a CTG does not apply.

The EPA has approved: the Maine VOC RACT for the 1-hour ozone standard (65 FR 20753, April 18, 2000) and (67 FR 35441, May 20, 2002); the Maine NO<sub>x</sub> RACT for the 1-hour ozone standard (60 FR 66755, December 26, 1995, and 67 FR 57154, September 9, 2002); the Maine VOC and NO<sub>x</sub> RACT for the 1997 8-hour ozone standard (77 FR 30216, May 22, 2012); and the Maine VOC RACT for the 2008 8-hour ozone standard (84 FR 38558, August 7, 2019). We note that Maine's petition includes a commitment to implement existing RACT and to adopt future RACT requirements statewide, for both the 2015 ozone NAAQS and any future ozone NAAQS. The state's deadline to submit a RACT SIP for the 2015 ozone standard was August 3, 2020 (83 FR 62998, 63001, December 6, 2018).

Notwithstanding the stated intention in Maine's petition to adopt statewide RACT for the 2015 ozone standard and to adopt statewide RACT for future ozone NAAQS, in this case the EPA does not believe it is necessary for the state to adopt such additional RACT to meet the test set forth in CAA section 176A(a)(2). The state's technical demonstration submitted with its petition, which shows that Maine does not and will not contribute to nonattainment or interfere with maintenance anywhere in the OTR, does not reflect the adoption of statewide RACT to address the 2015 ozone NAAQS (or additional RACT controls for future standards). As stated in CAA section 176A(a)(2), and discussed in Section III.C of this notice, the Administrator may exercise the OTR removal provision "whenever the Administrator has reason to believe" that

additional OTR controls will not contribute significantly to attainment in the OTR. The EPA interprets this language to permit the Administrator to consider whether to approve a state's petition even if the state has not met, and the EPA has not fully approved, all applicable OTR requirements to date.

If finalized, the EPA's grant of Maine's petition would terminate Maine's federal obligation under CAA section 184 to adopt further RACT requirements for the portion of the state no longer in the OTR, including for the 2015 ozone NAAQS. The portion of the state remaining in the OTR, however, remains obligated under CAA section 184 to submit a SIP revision to address both NO<sub>x</sub> and VOC RACT for the 2015 ozone NAAQS, and for any future ozone NAAQS so long as the area remains in the OTR. Of course, the state could still elect to adopt SIP-strengthening control measures (either at the state level or as SIP-strengthening measures) for sources in the portion of the state that is no longer in the OTR, even if that portion of the state is not obligated to meet RACT under section 184(b). In addition, if the EPA's grant is finalized, the state could seek to relax or remove RACT requirements in its SIP for the portion of the state no longer in the OTR, but as noted in section III.C, any such revision would be required to satisfy a demonstration of noninterference under section 110(l).

## **V. The EPA's Technical Assessment of the Maine CAA Section 176A Petition**

### *A. Description of the technical analysis included in the Maine CAA Section 176A petition*

As noted previously, the Maine petition included detailed technical analyses for VOC and NO<sub>x</sub> emissions in the state, including an analysis of whether emissions from Maine impact other areas in the OTR. The state uses the following techniques to analyze those emissions and their impacts: back trajectories using the National Oceanic and Atmospheric Administration (NOAA) Air Resources Laboratory's Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT)



model<sup>47</sup> and photochemical source apportionment modeling. These analyses are in keeping with steps 1 and 2 of the interstate transport framework described in Section III.C of this document. In both the trajectory and modeling analyses, air quality monitors that either measured elevated ozone concentrations or were projected to have design values that violated the NAAQS or struggled to maintain the NAAQS were identified (step 1). Maine then used HYSPLIT trajectory model and photochemical source apportionment modeling to identify whether Maine contributed to those problem monitors (step 2). Further inspection of Maine's emissions trends supports the conclusions made using the HYSPLIT and source apportionment modeling analyses.

The air trajectories used by Maine DEP are four-dimensional representations of the path an air parcel follows, in time, based on surface and upper-level meteorological data during the day of and days prior to the measured exceedances. A back trajectory, as used by Maine DEP in this case, represents the path an air parcel takes to reach a specific point in time and space. Using the HYSPLIT back trajectory model, Maine DEP air quality meteorologists analyzed back trajectories for 989 days from the 2016 through 2018 ozone seasons at monitoring locations in the OTR with current 8-hour ozone design values exceeding the 2015 ozone NAAQS of 70 ppb. For each such exceedance day at each monitoring site, 48-hour back trajectories originating from 10 and 500 meters above ground level were created for the hour of the maximum hourly ozone. As noted above in Section IV.A of this document, for this analysis, the "NAM 12 km pressure" gridded meteorological data was used, except for August 27, 2016, when no meteorological data was available so the "NAM 12 km hybrid" meteorology was used for that day. The trajectories were then plotted to determine the origin of the air on high-ozone days. The Maine petition

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<sup>47</sup> For more information about HYSPLIT please refer to the following document by Roland R. Draxler and G.D. Hess: *Description of the HYSPLIT 4 Modeling System*. (See <http://www.arl.noaa.gov/documents/reports/arl-224.pdf>.)

included maps showing that none of the 989 10m back trajectories traveled over the state of Maine (Figure 7 of Maine petition) and that 2 out of the 989 back trajectories at 500 meters traversed the far western edge of Maine (Figure 9 of Maine petition). Maine asserted that the fact that air parcels at violating monitors on days greater than 70 ppb did not originate from or traverse the state of Maine in the preceding 48 hours provided support for the conclusion that Maine did not contribute significantly to ozone nonattainment at those violating monitors.

In addition, Maine provided similar HYSPLIT back trajectory analyses for Maine monitors (none of which recorded design values above the NAAQS) on days when maximum daily 8-hour average ozone concentrations exceeded 70 ppb. These back trajectories showed that most of the air parcels traveling to the Maine monitors on those high-ozone days were transported from the south and southwest direction along the coast of Maine and primarily traversed either offshore locations or portions of the state that will remain in the OTR.

In addition to the trajectory analysis discussed above, Maine's petition referenced the EPA's photochemical modeling for the CSAPR Update for the 2008 ozone NAAQS and results from the interstate transport modeling for the 2015 ozone NAAQS.<sup>48,49</sup> The EPA's CSAPR Update modeling projected ozone design values in 2017 and modeled each state's total contribution to that value for the 2008 8-hr ozone NAAQS of 75 ppb. The same was done for the 2015 8-hour ozone NAAQS of 70 ppb interstate transport assessment for the year 2023. The

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<sup>48</sup> See Air Quality Modeling Technical Support Document for the Final CSAPR Update, available in the docket for this action or at <https://www.epa.gov/airmarkets/air-quality-modeling-technical-support-document-final-cross-state-air-pollution-rule>.

<sup>49</sup> See Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018, available in the docket for this action or at <https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices>.

maximum contribution from the entire state of Maine to any monitoring site in any other state in the OTR is 0.47 ppb in New Hampshire, based on the EPA's contribution modeling for 2017, and 0.13 ppb in Massachusetts based on the EPA's contribution modeling for 2023. The modeling further estimated that the maximum total contribution of the state of Maine to any monitors projected to have nonattainment or maintenance problems within the OTR was 0.01 ppb for both 2017 and 2023.

Finally, Maine provided graphical figures showing NO<sub>x</sub> and VOC historical emissions trends as well as projected emissions trends out to 2028. These data include statewide emissions inventories as well as a break-out of emissions for the Portland and Midcoast Ozone areas. Furthermore, the petition provides emissions data broken out into four source types (on-road vehicles, non-road equipment, point sources and nonpoint sources), and shows that emissions of on-road vehicles, which were the largest source of anthropogenic NO<sub>x</sub> emissions in the state of Maine between 2005 and 2014, are expected to continue to decline. Maine's emissions analysis also shows that nonpoint and non-road sectors were the largest sources of VOC emissions in the state of Maine in 2005 and 2014.

*B. The EPA's technical assessment of the Maine Section 176A Petition*

As noted in Section III.C of this document, the EPA views the inquiry under CAA section 176A(a)(2) as necessitating the identification of current and future air quality problems in the OTR, determining whether the petitioning area is significantly contributing to those problems, and examining whether removal of the petitioning area from the OTR will significantly contribute to nonattainment or maintenance problems in the future. The EPA proposes to find that the technical analyses submitted by Maine in its CAA section 176A

petition, in conjunction with additional analysis performed by the EPA, support Maine's petition to remove a portion of the state from the OTR.

The HYSPLIT analyses performed by Maine and summarized in Section V.A. are a technically sound and appropriate method to support showing the potential (or lack of potential) of an area to contribute to high-ozone values at a downwind location. This type of trajectory analysis is a commonly used method to examine potential source-receptor relationships based on air transport patterns. In this case, we agree that the analysis provided by Maine showed that in 2016-2018 air parcels containing high-ozone concentrations at violating monitors in the OTR rarely if ever originated from Maine.

The EPA's ozone source apportionment air quality modeling conducted for the CSAPR Update, and the EPA's interstate transport modeling for the 2015 ozone NAAQS both further support the conclusions that 1) Maine has historically contributed below the one percent threshold of 0.70 ppb to all other states and contributes well below that threshold to any receptors currently<sup>50</sup> identified as having a potential nonattainment or maintenance problem, and that 2) the state will continue to contribute below that threshold to all other states in the OTR in the future. Further, EPA's analysis demonstrates that there are no ozone nonattainment or maintenance receptors in Maine, either now, or going forward, even if the petition is granted. The EPA's source apportionment modeling employs enhanced techniques that track the formation and transport of ozone from specific emissions sources and calculates the contribution of sources and precursors to ozone for individual receptor locations. The strength of the photochemical model source apportionment technique is that all modeled ozone at a given

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<sup>50</sup> Based on official 2019 ozone design values (<https://www.epa.gov/air-trends/air-quality-design-values>).

receptor location in the modeling domain is tracked back to specific sources of emissions and boundary conditions to fully characterize culpable sources.

Data from the contribution analysis are summarized within Table 2 of the state's submittal, showing the maximum modeled ozone contribution from Maine's emissions in other OTR states. The data indicate a maximum modeled impact of only 0.47 ppb in 2017 in New Hampshire, which is well below the one percent threshold of 0.70 ppb used to establish significant contribution linkages, and, additionally, occurs in a state, New Hampshire, that is attaining and projected to continue to attain both the 2008 and 2015 ozone NAAQS. The EPA also examined its 2023 contribution modeling to identify the highest contribution from Maine to any projected nonattainment or maintenance receptor in another state. The data show that the highest contribution from Maine to a nonattainment or maintenance receptor in another state based on modeling is 0.01 ppb in 2017 at the receptor in Greenwich, Fairfield County, CT and 0.01 ppb in 2023 at the receptor in Babylon, Suffolk County, NY (site 361030002). This amount (i.e., 0.01 ppb) is well below a 0.70 ppb (i.e., one percent of the 2015 NAAQS) contribution threshold.

Second, Maine's HYSPLIT back trajectory analyses included an evaluation of Maine monitors that indicates that high-ozone concentrations in the state are largely due to out-of-state contributions. Maine's petition provides back trajectory air parcel paths from monitors in the state on days when those monitors recorded maximum daily 8-hour average ozone concentrations that exceeded the 2015 NAAQS. The air parcels traveling to these Maine monitors on those high-ozone days did not typically traverse the portions of Maine proposed to be removed from the OTR. Rather, the air parcels were carried by winds from the south and

southwest and, on most days traversed either marine locations or the portion of the state that will remain in the OTR (i.e., the Portland and Midcoast areas).

We also propose to find that the NO<sub>x</sub> and VOC historical emissions trends and projected future emissions trends information to 2023 and 2028 provided in Maine's submittal further support removal of the petitioning area from the OTR. VOC and NO<sub>x</sub> emissions in Maine have declined since 2005 and are expected to continue to decline into the future. The historical and projected downward trend is driven, in large part, by emissions reductions from the point source and on-road mobile source categories.

Maine's documentation shows that statewide point source emissions of NO<sub>x</sub> and VOC decreased 51 and 45 percent, respectively from 2005 to 2016. Maine's projections predict that NO<sub>x</sub> and VOC emissions will continue to decrease into the future. For example, Maine's analysis of statewide emissions shows NO<sub>x</sub> and VOC reductions of 46 and 34 percent respectively between 2011 and 2023. These reductions are primarily coming from on-road vehicles, EGU point sources, and non-road equipment. The reduction in emissions from on-road vehicles is largely the result of several mobile source programs such as the Tier 3 emissions and gasoline standards for light-duty vehicles, the mobile source air toxics rule and the heavy-duty highway vehicle rule<sup>51</sup> which have resulted in newer vehicles having lower emissions than vehicles previously sold in the U.S. As more of those newer, lower-emitting vehicles replace older, higher-emitting vehicles, mobile source emissions are expected to further decline. It

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<sup>51</sup> *E.g.*, Control of Air Pollution From Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, 79 FR 23414 (April 28, 2014); Control of Hazardous Air Pollutants From Mobile Sources, 72 FR 8428 (February 26, 2007); and Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, 66 FR 5002 (January 18, 2001).

should be noted that none of these regulations were affected by the recent finalization of “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program”<sup>52</sup> or “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks,”<sup>53</sup> which addressed greenhouse gas emissions standards, corporate average fuel economy standards and the ability of states to adopt greenhouse gas standards and related regulations for light-duty vehicles.

We note that the source apportionment air quality modeling cited by Maine has been at issue in various legal challenges to EPA actions. *See Wisconsin v. EPA*, 938 F.3d 303 (D.C. Cir. 2019); *Maryland v. EPA*, 958 F.3d 1185 (D.C. Cir. 2020). In both of those cases, the D.C. Circuit remanded the EPA’s final actions to the extent that those actions failed to require upwind states to eliminate their significant contributions in accordance with the attainment dates found in CAA section 181 by which downwind states must come into compliance with the relevant NAAQS. *Wisconsin*, 938 F.3d at 313; *Maryland*, at 958 F.3d at 1203-04. The two statutory provisions at issue in *Wisconsin* and *Maryland*—i.e., CAA section 110(a)(2)(D)(i)(I) (the good neighbor provision), and CAA section 126, which by its terms incorporates the substantive requirements of the good neighbor provision—require that the states and the EPA consider statutory downwind attainment dates in determining the deadline by which upwind significant contribution must be eliminated. *See* CAA section 110(a)(2)(D)(i)(I) (State plans must “contain adequate provisions prohibiting, *consistent with the provisions of this subchapter*,” emissions which will contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such NAAQS) (emphasis added). By contrast, CAA section 176A

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<sup>52</sup> 84 FR 51310 (September 27, 2019).

<sup>53</sup> 85 FR 24174 (April 30, 2020).

has no reference to other provisions of the CAA, the attainment dates in title I, or a defined timeframe for analysis. *See* CAA section 176A(a)(1) and (2) (the Administrator may add any state *whenever* he has reason to believe that the interstate transport of air pollutants . . . “significantly contributes to a violation of the standard in the transport region”; and the Administrator may remove any state from the region *whenever* he has reason to believe that the OTR control of emissions in the state will not “significantly contribute to the attainment of the standard in any area in the region”) (emphasis added). In addition, while the selected analytic year for the EPA’s air quality modeling can in some instances have a material impact on determining whether receptors are in attainment and/or whether areas are linked to those receptors, this is not the case for Maine. Maine has not been linked as contributing above the one percent of the NAAQS threshold to downwind nonattainment or maintenance based on air quality contribution modeling performed by the EPA for either the 2008 or 2015 ozone NAAQS. We, therefore, do not think that the legal issues identified with the EPA’s air quality modeling in *Wisconsin* and *Maryland*, which were solely concerned with the relationship of that modeling to the statutory attainment dates, undermines Maine’s use of that modeling in its petition. Moreover, we note that the D.C. Circuit upheld the EPA’s air quality modeling with respect to the many technical challenges raised by petitioners in the *Wisconsin* case. 938 F.3d at 323-331.

The EPA, therefore, proposes to find that granting Maine’s petition to remove portions of the state from the OTR, and the resulting changes in the extent of emissions controls that would result (discussed in detail in section IV), will not significantly contribute to nonattainment or maintenance problems for any area in the OTR. As noted, the emissions trends in Maine indicate continued declines in emissions of ozone precursors associated with on-the-books emissions controls, and do not depend on any new emissions limitations that would be driven by OTR



control requirements under CAA section 184(b). In addition, Maine's highest modeled contribution to any receptor in the OTR that is expected to struggle with attainment or maintenance of the 2015 ozone NAAQS is only 0.01 ppb. This suggests that the ozone contribution from anthropogenic ozone precursor emissions in Maine would have to increase by a factor of 70 for Maine to potentially contribute above the one percent threshold to an existing or projected nonattainment or maintenance problem in the OTR. This observation is made merely to provide an indication of the general magnitude of emissions increases from Maine that would be needed in order for existing trends in improving air quality to be halted and reversed to the extent that such an increase may create new air quality problems closer to, or within, Maine. The EPA believes that granting the petition would not result in such a change in emissions resulting from either removal of existing emissions controls or unchecked growth in new source emissions. The historic emissions trends in Maine, the CAA's section 110(l) anti-backsliding provisions for SIP revisions and the new source PSD permitting provisions that would apply in the removed portion of the state provide assurances that a substantial increase in emissions is highly unlikely, and would represent an unprecedented reversal in overall emissions reductions for any state, whether in the OTR or not.

Further, as discussed in Section IV of this document, the primary change in the ozone control regime that will result from granting the petition is to switch from NNSR requirements for new sources of emissions to PSD NSR requirements, in the areas of the state to be removed. This change would mean the application of BACT rather than LAER controls for new sources and removal of the requirement to obtain emissions offsets. This change would be primarily impactful for VOCs rather than NO<sub>x</sub> emissions. This is because Maine has, in the past, obtained NO<sub>x</sub> waivers under CAA section 182(f), which suspended NNSR requirements (and RACT

requirements) for major NO<sub>x</sub> emissions sources. During the periods when Maine was under NO<sub>x</sub> waivers, its NO<sub>x</sub> emissions and ozone levels generally continued to decline. Thus, while Maine has not obtained a NO<sub>x</sub> waiver for the 2015 ozone NAAQS, this does not affect the EPA's overall assessment that the switch to PSD NSR from NNSR would not be expected to result in a substantial change from historical levels of NO<sub>x</sub> emissions. With respect to VOC emissions, any new source growth under PSD NSR rather than NNSR cannot be reasonably anticipated to cause such a dramatic increase in emissions as to result in new air quality problems where none currently exist—where such improvements in Maine's air quality have primarily been driven by reductions in out-of-state emissions and non-OTR related control strategies such as federal mobile source standards.

Additionally, Maine's petition shows that a substantial portion of Maine's anthropogenic VOC and NO<sub>x</sub> emissions occur in the Portland and Midcoast ozone areas, which Maine is not proposing to remove from the OTR.<sup>54</sup> The fact that the petition shows contributions from the entire state to be insignificant, while a substantial portion of those emissions originate from areas that will remain in the OTR makes an even stronger case that there is reason to believe that

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<sup>54</sup> While Maine's petition does not provide precise emissions for the Portland and Midcoast ozone areas, comparing Figures 14 and 15 in the petition with the state's overall emissions in Figures 12 and 13 shows that in 2005, NO<sub>x</sub> emissions in the Portland and Midcoast areas accounted for over half of the state's overall NO<sub>x</sub> emissions and VOC emissions from those areas comprised about half of the state's overall VOC emissions. Similarly, in 2014, NO<sub>x</sub> emissions from the Portland and Midcoast ozone areas accounted for about half of the state's overall NO<sub>x</sub> emissions, and the areas' VOC emissions accounted for a little under half of the state's overall VOC emissions. We note that the figures in the petition provide Maine's total emissions in tons/day while the figures regarding the Portland and Midcoast areas provide emissions in summer tons/day, but the EPA believes the overall state emissions are likely summer tons/day because such reporting would be in line with the EPA's longstanding guidance to states on how to prepare emission inventories for ozone NAAQS.

granting Maine's petition will not result in significant contributions to ozone violations anywhere in the OTR.

## **VI. The EPA's Proposed Action on the Maine CAA Section 176A Petition**

Based on the information discussed in this notice, the EPA is proposing to grant Maine's CAA section 176A petition. In consideration of monitoring data, emissions data, technical demonstrations (including air quality monitoring and trajectory analyses), and the potential impact to air quality control regimes, the EPA proposes to find that additional OTR controls under CAA section 184(b) for the portion of the state that Maine is seeking to remove from the OTR will not significantly contribute to attainment of any ozone NAAQS in any area of the OTR. In support of this proposed conclusion, the EPA finds that removing the requested areas from the OTR will not result in emissions changes that would significantly contribute to nonattainment or interfere with maintenance of any ozone NAAQS in any area of the OTR. All areas of the state proposed for removal from the OTR have been designated in attainment of the ozone NAAQS since 2004, and the entire state of Maine has been designated as in attainment with the ozone NAAQS since 2007. Technical demonstrations from Maine's HYSPLIT back trajectory analysis, the EPA's ozone source apportionment modeling, and emissions trends all support the assertion that emissions from the areas requested to be removed from the OTR will not significantly contribute to nonattainment or maintenance problems in any area in the OTR, either within or outside the state of Maine, in the foreseeable future. Furthermore, removing those areas from the OTR will not result in unchecked relaxation of existing NO<sub>x</sub> and VOC controls included in Maine's SIP or revoke permitted emissions limits at existing facilities. Any future revisions to Maine's SIP would be subject to CAA section 110(l) anti-backsliding

demonstrations. Accordingly, the EPA proposes to grant the CAA section 176A petition filed by the state of Maine.

## **VII. Judicial Review and Determinations Under Sections 307(b)(1) and 307(d) of the CAA**

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action, if finalized, must be filed in the United States Court of Appeals for the appropriate circuit within 60 days of publication of any final action. Filing a petition for reconsideration by the Administrator of this rule, if finalized, will not affect the finality of the rule for the purposes of judicial review nor will it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. The Administrator of the EPA hereby determines that this action is subject to CAA section 307(d), as authorized by section 307(d)(1)(V).

## **VIII. Statutory Authority**

42 U.S.C. 7401 *et seq.*

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Andrew Wheeler,  
Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as follows:

## **PART 81—DESIGNATIONS OF AREAS FOR AIR QUALITY PLANNING PURPOSES**

1. The authority citation for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401, et. seq.

2. Part 81 is amended by adding new Subpart E to read as follows: Subpart E – Identification of Interstate Transport Regions

### **§81.455 Scope**

This subpart identifies interstate transport regions established for national ambient air quality standards pursuant to section 184 or section 176A of the Clean Air Act.

### **§81.456 Ozone Transport Region**

Except as provided in paragraph (a), the Ozone Transport Region is comprised of the areas identified by Congress under 42 U.S.C. § 7511c(a). The EPA Administrator removed a portion of Maine from the Ozone Transport Region, by rule, in response to a petition submitted by Maine under section 176A(a).

#### **(a) Ozone Transport Region Boundary**

As of [INSERT DATE 30 DAYS AFTER PUBLICATION OF FINAL ACTION IN FEDERAL REGISTER], the boundary for the Ozone Transport Region consists of the entire states of Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; [PORTIONS OF MAINE INCLUDED IN OTR AS IDENTIFIED AT [CITATION xxx]]; and the Consolidated Metropolitan Statistical Area [DOCUMENTATION DATE] that includes the District of Columbia and the following counties and cities in Virginia: Arlington County, Fairfax County, Loudoun County, Prince

William County, Strafford County, Alexandria City, Fairfax City, Falls Church City, Manassas City, and Manassas Park City.

**(b) Applicability**

As of **[INSERT DATE 30 DAYS AFTER PUBLICATION OF FINAL ACTION IN FEDERAL REGISTER]**, the provisions of 42 U.S.C. § 7511c will no longer be applicable in the following areas of Maine: **[PORTIONS OF MAINE TO BE REMOVED FROM OTR AS IDENTIFIED AT [CITATION xxx]]**.