6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2019-0618 and EPA-R04-OAR-2019-0619; FRL-10020-04-Region 4]

Air Plan Approval; TN; Removal of Vehicle I/M Program; Middle Tennessee Area and Hamilton County

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving state implementation plan (SIP) revisions submitted by the State of Tennessee, through the Tennessee Department of Environment and Conservation (TDEC), through letters dated February 26, 2020. Specifically, EPA is approving the removal of Tennessee's motor vehicle inspection and maintenance (I/M) program requirements for Davidson, Sumner, Rutherford, Williamson and Wilson Counties in Tennessee (also known as the Middle Tennessee Area) and Hamilton County (also known as the Chattanooga Area), from the federally-approved SIP. EPA is approving the February 26, 2020, SIP revisions to remove the I/M program requirements for the aforementioned areas from the federally-approved SIP because Tennessee's requests are consistent with the Clean Air Act (CAA or Act) and applicable regulations.

DATES: This rule is effective on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: EPA has established dockets for these actions under Docket Identification No. EPA-R04-OAR-2019-0618 and EPA-R04-OAR-2019-0619 at http://www.regulations.gov. All documents in the docket are listed on the www.regulations.gov web site. Although listed in the index, some information may not be publicly available, i.e., Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials can either be retrieved electronically via www.regulations.gov or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Lynorae Benjamin, Chief, Air Planning and Implementation Branch, Air and Radiation Division, Region 4, U.S. Environmental Protection Agency, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. The telephone number is (404) 562-9040. Ms. Benjamin can also be reached via electronic mail at benjamin.lynorae@epa.gov.

SUPPLEMENTARY INFORMATION:

I. This Action

EPA is approving changes to the Tennessee SIP that were provided to EPA under cover letters dated February 26, 2020.[1] Specifically, the State requested that Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-29 and Davidson County Regulation 8 be removed from the Tennessee SIP.[2] In addition, Tennessee requested that EPA remove the requirements for the Middle Tennessee Area[3] and Hamilton County to implement an I/M program as part of the Early Action Compact (EAC) that was approved by EPA into the non-regulatory portion of the Tennessee SIP on August 26, 2005. *See* 70 FR 50199. To support its requests, Tennessee provided its CAA section 110(l) non-interference demonstrations to show that removal of the I/M program for the Middle Tennessee Area and for Hamilton County would not interfere with attainment or maintenance of the national ambient air quality standards (NAAQS or standards) or with any applicable requirements of the CAA.

II. Background

On May 15, 2018, a Tennessee law was signed that states that "no inspection and maintenance program shall be employed in this state on or after the effective date of this act." *See* Tenn. Code Ann. § 68-201-119. The Tennessee law states that it "shall take effect [120] calendar days following the date on which the [EPA] approves a revised state implementation plan. . . ." *See* Motor Vehicles — Inspection and Inspectors — Air Pollution, 2018 Tennessee Laws Pub. Ch. 953 (H.B. 1782). Accordingly, Tennessee submitted the February 26, 2020, SIP

[1] EPA officially received Tennessee's I/M SIP revisions on February 27, 2020.
[2] The State's I/M program at TAPCR 1200-03-29 covers Hamilton County in addition to Sumner, Rutherford, Williamson and Wilson Counties. Throughout this notice, where EPA uses the phrase "I/M program", the Agency is referring to the State's I/M program in both the Middle Tennessee Area and Hamilton County and the Davidson County I/M program unless otherwise noted.
[3] In December 2002, the Middle Tennessee Area entered into EPA's EAC program. As part of the EAC for the Middle Tennessee Area, the I/M program was identified as an existing control strategy in the SIP.

revisions requesting that EPA remove the requirements to implement an I/M program for the Middle Tennessee Area and for Hamilton County from the Tennessee SIP.[4]

EPA published notices of proposed rulemaking (NPRMs) on June 8, 2020, and June 11, 2020, responding to Tennessee's February 26, 2020, SIP revision requests that EPA approve removal of the I/M program from the Tennessee SIP for the Middle Tennessee Area and for Hamilton County, respectively. *See* 85 FR 35037 and 85 FR 35607. The June 8, 2020, and June 11, 2020, NPRMs (hereinafter referred to as the June 2020 NPRMs) were based on EPA's proposed findings that the removal of the I/M program from the Tennessee SIP for the Middle Tennessee Area and for Hamilton County will not interfere with Tennessee's attainment or maintenance of any NAAQS or with any applicable requirements of the CAA. *See* EPA's June 2020 NPRMs and Section III of this notice for further detail. Comments were due on July 8, 2020, and July 13, 2020, respectively. In this action, EPA is responding to comments received on the June 2020 NPRMs, and is finalizing the removal of the I/M program from Tennessee's SIP for the Middle Tennessee Area and for Hamilton County. EPA chose to issue one final rulemaking for both proposals to avoid confusion and because comments received on both proposals were similar. EPA recognizes that some of the information and analysis included in this final rulemaking notice was not provided in the June 2020 NPRMs. This new information and analysis provides additional support for the conclusions proposed in those notices.

III. CAA Section 110(l) Analysis

[4] Tenn. Code Ann. § 68-201-119(c) allows Tennessee counties to retain local I/M programs under certain conditions. As Tennessee is requesting removal of the I/M program from the SIP, EPA's analysis in this final rule assumes that no I/M program will be implemented in the Middle Tennessee Area. However, this final action does not preclude local I/M programs from being retained at a local level outside of the SIP.

EPA's CAA section 110(l) non-interference demonstration supporting its approval of Tennessee's SIP revisions seeking removal of the I/M program in Hamilton County and the Middle Tennessee Area focuses on ozone (through its precursors nitrogen oxides (NOx) and volatile organic compounds (VOC)) and carbon monoxide (CO), the criteria pollutants addressed by I/M programs.[5] I/M programs are not designed to address lead and sulfur dioxide (SO_2) emissions, and nitrogen dioxide (NO_2) is captured generally through consideration of NOx impacts. While EPA considers NOx, VOCs, ammonia, and SO_2 as precursors for particulate matter (PM), PM formation in Tennessee is dominated by emissions of SO_2, reacting in the atmosphere to form sulfates, and not by emissions of NOx, VOCs, or ammonia. However, NOx and VOC increases are considered through the analysis for ozone. Although Tennessee is NOx-limited[6] for ozone formation, EPA also evaluated VOC emissions to be environmentally conservative in its action.

EPA used an emissions inventory comparison to inform its determination of whether Hamilton County and the Middle Tennessee Area would continue to attain and maintain the ozone and CO NAAQS after removal of the I/M program. Tennessee chose 2022 as the future year for the State's non-interference demonstrations.[7] Tennessee's non-interference

[5] The total suite of CAA criteria pollutants are ozone (through the precursors NOx and VOCs), CO, PM (and its precursors - NOx, VOCs, ammonia, and SO_2), lead, SO_2, and NO_2.

[6] The term "NOx limited" means that changes in anthropogenic VOC emissions have little effect on ozone formation. Control of NOx and VOC are generally considered the most important components of an ozone control strategy, and NOx and VOC make up the largest controllable contribution to ambient ozone formation. However, Tennessee has shown a greater sensitivity of ground-level ozone to NOx controls rather than VOC controls. This is due to high biogenic VOC emissions compared to anthropogenic VOC emissions in Tennessee. Therefore, implemented control measures have focused on the control of NOx emissions.

[7] EPA notes that Tennessee did an analysis of emissions between 2022 and 2030 without I/M to determine the potential impact of on mobile emissions. Tennessee's analysis shows that in the Middle Tennessee Area emissions

demonstration utilized EPA's Motor Vehicle Emission Simulator (MOVES) modeling system, specifically MOVES2014b, to estimate ozone precursor emissions for mobile sources — both onroad and non-road. In general, an emissions comparison approach is a reasonable and valid approach to determining whether an area removing an I/M program can maintain the NAAQS and is very similar to the maintenance demonstrations that support the redesignations of areas from nonattainment to attainment and 10-year maintenance plans that are required for redesignated areas. EPA is comparing future year emissions (following the removal of the I/M program) to emissions in a base year with an attaining design value.[8] If the total future year emissions for the relevant pollutant(s)/precursor(s) are less than the total base year emissions, EPA considers that to be a sufficient and reasonable demonstration that the area will maintain the NAAQS where the base year emissions are at a level sufficient to achieve the NAAQS. This analysis provides further support for the conclusions set forth in the June 2020 NPRMs. CAA section 110(l) demonstrations are case-specific and modeling is not required to demonstrate non-interference under these circumstances.

A. Middle Tennessee Area

The Middle Tennessee Area is currently in attainment with all NAAQS.[9] As presented in Table 1, past design values (i.e., prior to October 1, 2015) have demonstrated attainment of the

decrease by 35 percent for NOx, 24 percent for VOC, and 30 percent for CO; and that in Hamilton County emissions decrease by 45 percent for NOx, 33 percent for VOC, and 40 percent for CO. This analysis is provided in the dockets for this final rulemaking as weight of evidence.

[8] Design values are how EPA measures compliance with the NAAQS.

[9] As mentioned in the June 8, 2020, NPRM, the current design values in the Middle Tennessee Area for PM, NO_2, lead and SO_2 are attaining the NAAQS. In fact, the Middle Tennessee Area has never been designated nonattainment for PM, NO_2, lead, or SO_2. The increases in NOx and VOC emissions without the I/M program in 2022 in comparison to with the I/M program in 2022 are not expected to cause a concern for PM, NO_2, lead and SO_2

2008 8-hour ozone NAAQS (i.e., the applicable NAAQS at that time), and recent design values have demonstrated attainment of the 2015 8-hour ozone NAAQS in the Middle Tennessee Area.

Table 1: Middle Tennessee Area Ozone Monitor Design Values***

	Ozone Design Value, parts per billion (ppb)					
Site name	**2012-2014**	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
Trinity Lane, Davidson County	*	*	66	65**	66	65
Percy Priest, Davidson County	70	65	67	64	67	65
Rockland Recreation Area, Sumner County	72	67	67	66	66	66
Fairview Middle School, Williamson County	66	62	61	60	60	60
Cedars of Lebanon State Park, Wilson County	67	62	64	63	*	*

*No valid design value due to incomplete data. The Cedars of Lebanon site had incomplete data in 2018 because there was an issue following the installation of a new monitoring shelter, and TDEC invalidated data collected before the issue was corrected. The East Health/Trinity Lane site had incomplete data in 2013.

**In the June 11, 2020, NPRM (85 FR 35607), EPA inadvertently stated that the 2015-2017 design value was 66 ppb. The correct value is 65 ppb.

*** The Middle Tennessee Area was in attainment with the most recent effective ozone NAAQS for the entire period. 2012-2014 and 2013-2015 design values were attaining the 2008 8-hour ozone NAAQS of 0.075 parts per million (ppm). EPA notes that the 2015 8-hour ozone NAAQS of 0.070 ppm was not in effect until October 1, 2015, and all design values after this date attained the 2015 8-hour ozone standard.

compliance in the Middle Tennessee Area. As discussed more in this notice, no reductions or emissions benefits are attributable to the I/M program for PM, lead and SO_2 in the Middle Tennessee Area, and the total emissions increases in NOx (of which NO_2 is a component) in 2022 without the program is less than the total emissions in 2014.

Also, design values for Tennessee for the 1-hour (see Table 2) and 8-hour (see Table 3) CO NAAQS in 2019 were 1.6 ppm and 1.8 ppm, respectively, which are less than 20 percent of the CO NAAQS for both the 1-hour and 8-hour standards.

Table 2: Middle Tennessee Area CO Monitor Design Values

	CO 1-hr Design Value, ppm**						
Site name	**2012-2013**	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**
Alabama Ave. Station, Shelby County	2.4	2.4	1.9	1.9	1.4	*	*
Great Smoky Mountains NP - Look Rock, Blount County	*	*	0.3	2.2	2.2	0.3	1.2
Memphis NCORE site, Shelby County	1.3	1.3	1.6	1.6	1.0	1.0	1.0
Broadway, Davidson County	1.9	1.6	*	*	*	*	*
Near Road, Davidson County	*	*	1.7	1.7	1.9	1.9	1.8
Near Road Site at Southwest Tennessee Community College, Shelby County	*	*	4.5	4.5	1.2	1.6	1.6

* Data is not available for all monitors and years due to CO monitor startups and shutdowns during this time period.

**The level of the 1971 1-hour NAAQS for CO is 35 ppm not to be exceeded more than once per year. The design value is evaluated over a two-year period. Specifically, the design value is the higher of each year's annual second maximum, non-overlapping 1-hour average. Only valid design values are shown.

Table 3: Middle Tennessee Area CO Monitor Design Values

	CO 8-hr Design Value, ppm**						
Site name	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Alabama Ave. Station, Shelby County	1.9	1.9	1.5	1.5	1.2	*	*
Great Smoky Mountains NP - Look Rock, Blount County	*	0.2	0.3	1.2	1.2	0.3	0.6
Memphis NCORE site, Shelby County	0.8	0.8	0.9	0.9	0.7	0.9	0.9
Broadway, Davidson County	1.5	1.2	*	*	*	*	*
Near Road, Davidson County	*	1.2	1.4	1.5	1.5	1.6	1.6
Near Road Site at Southwest Tennessee Community College, Shelby County	*	0.6	2.0	2.0	0.7	0.9	0.9

* Data is not available for all monitors and years due to CO monitor startups and shutdowns during this time period.

**The level of the 1971 8-hour NAAQS for CO is 9 ppm not to be exceeded more than once per year. The design value is evaluated over a two-year period. Specifically, the design value is the higher of each year's annual second maximum, non-overlapping 8-hour average. Only valid design values are shown.

Monitoring data for 2020 is not yet certified, but preliminary data remains consistent with attainment of the ozone and CO NAAQS.

To support its demonstration of non-interference for the Middle Tennessee Area, EPA used 2014 as an attainment base year[10] and compared the total emissions of NOx, VOC, and CO to the total emissions of these pollutants in 2022, the year when the I/M program in the Middle Tennessee Area is expected to end. EPA chose 2014 because the point, nonroad, and non-point data provided in Tennessee's February 26, 2020, submissions were the most currently available to the State at the time of the development of these SIP revisions. The mobile emissions were generated utilizing MOVES2014b, the applicable mobile emissions model at the time of the development of the SIP revision. For consistent comparisons, EPA obtained the 2014 mobile emissions submitted by Tennessee from EPA's Emissions Inventory System (EIS). Table 4 provides a summary for the Middle Tennessee Area of the total emissions for NOx, VOC, and CO in 2014; total emissions for NOx, VOC, and CO in 2022 with the I/M program; and total emissions for NOx, VOC, and CO in 2022 without the I/M program.

Table 4: Middle Tennessee Area Emissions (tons per year (tpy))

Sector	2014 Emissions			2022 Projected Emissions With I/M			2022 Projected Emissions Without I/M		
	NOx	VOC	CO	NOx	VOC	CO	NOx	VOC	CO
Onroad	27,499	12,497	135,844	11,309	4,780	71,816	11,788	5,373	82,184
Point	8,040	3,803	2,568	4,455	3,867	2,696	4,455	3,867	2,696
Nonroad	8,339	5,638	56,497	5,413	3,451	49,105	5,413	3,451	49,105

[10] As shown in Table 1 above, 2014 is included as one of the years associated with attaining design values for the 2008 8-hour ozone NAAQS (the applicable NAAQS in 2015). Although the 2014 4th highest daily maximum 8-hour ozone concentration is higher than the level of the 2015 8-hour ozone NAAQS (see Table 9, below), EPA believes that 2014 is an acceptable base year given the magnitude of the NOx and VOC emissions reductions from 2014 to 2022 and the fact that the 2014 4th max was only one ppb higher than the level of the 2015 8-hour ozone standard. EPA also notes that the 2015 8-hour ozone NAAQS was not in effect until October 1, 2015.

Non-Point	3,702	19,716	41,375	3,504	22,690	45,833	3,504	22,690	45,833
Total	**47,580**	**41,654**	**236,284**	**24,681**	**34,788**	**169,450**	**25,160**	**35,382**	**179,818**
Percent reduction from 2014 emissions							47.1 %	15.1 %	23.9 %

As stated in the EPA's June 8, 2020, NPRM, for 2022, the removal of the I/M program accounts for a small increase in NOx and VOC onroad emissions. The difference in NOx emissions in 2022, with and without the I/M program, is 479 tpy for NOx and 594 tpy for VOC. However, the total NOx emissions in 2022 without the I/M program are 22,420 tpy less than the total NOx emissions in 2014, and total VOC emissions in 2022 without the I/M program are 6,272 tpy less than the total VOC emissions in 2014. For CO, the difference in emissions in 2022, with and without the I/M program, is 10,368 tpy. However, the total CO emissions without the I/M program are 56,466 tpy less than the total CO emissions in 2014. Even without the I/M program in 2022, emissions of NOx, VOC, and CO are projected to decrease by 47.1 percent, 15.1 percent, and 23.9 percent, respectively, from 2014 levels.

Because 2022 total emissions without the I/M program are projected to be less than the total 2014 emissions, EPA concludes that removal of the I/M program in the Middle Tennessee Area will not interfere with attainment or maintenance of the NAAQS, or any other applicable CAA requirements. Additionally, as shown in Table 1, the highest ozone design value associated with 2014 is 1 ppb above the most recently available ozone design value for 2017-2019, thereby providing an additional buffer, and the 2017-2019 ozone design value is at least 4 ppb below the level of the 2015 8-hour ozone NAAQS of 70 ppb. EPA is concluding that it is not reasonable to expect emissions that are 22,420 tpy less than 2014 NOx emissions and 6,272 tpy less than 2014 VOC emissions would cause ozone levels to exceed the current 2015 8-hour

ozone NAAQS. Also, EPA is concluding that it is not reasonable to expect that emissions that are 56,466 tpy less than 2014 CO emissions would cause CO levels to exceed either the 1-hour or 8-hour CO NAAQS.

B. Hamilton County

Hamilton County is currently in attainment with all NAAQS.[11] As presented in Table 5, past design values (i.e., prior to October 1, 2015) have demonstrated attainment of the 2008 8-hour ozone NAAQS (i.e., the applicable NAAQS at that time), and recent design values have demonstrated attainment of the 2015 8-hour ozone NAAQS in Hamilton County.

Table 5: Hamilton County Monitor Design Values

	Ozone Design Value,* ppb					
Site name	**2012-2014**	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
Eastside Utility	69	66	68	67	66	64
Soddy Daisy	67	64	65	65	64	64

* Hamilton County was in attainment with the most recent effective ozone NAAQS for the entire period. 2012-2014 and 2013-2015 design values were attaining the 2008 8-hour ozone NAAQS of 0.075 ppm. EPA notes that the 2015 8-hour ozone NAAQS of 0.070 ppm was not in effect until October 1, 2015, and all design values after this date attained the 2015 standard.

The Chattanooga Metropolitan Statistical Area (of which Hamilton County is a part) is not required to operate a CO monitor, and there is no historical CO monitoring data in Hamilton

[11] As mentioned in the June 11, 2020, NPRM, the current design values in Hamilton County for PM, NO_2, lead, and SO_2 are attaining the NAAQS. In fact, Hamilton County has never been designated nonattainment for NO_2, lead, or SO_2. Hamilton County was previously designated nonattainment for the 1997 PM NAAQS but has since attained that NAAQS and is still in compliance. The increases in NOx and VOC emissions without the I/M program in 2022 in comparison to with the I/M program in 2022 are not expected to cause a concern for PM, NO_2, lead and SO_2 compliance in Hamilton County. As discussed more in this notice, no reductions or emissions benefits are attributable to the I/M program for PM, lead, and SO_2 in Hamilton County, and the total emissions increases in NOx (of which NO_2 is a component) in 2022 without the program is less than the total emissions in 2014.

County. The highest CO design values in Tennessee during 2018-2019 for the 1-hour and 8-hour CO NAAQS were both measured at the Nashville Near Road site, and were 1.6 ppm (see Table 2 above) and 1.8 ppm (see Table 3 above), respectively, which are less than 20 percent of the CO NAAQS for both the 1-hour and 8-hour standards.

To support its demonstration of non-interference for Hamilton County, EPA used 2014 as an attainment base year[12] and compared the total emissions of NOx, VOC, and CO to the total emissions of these pollutants in 2022, the year when the I/M program in Hamilton County is expected to end. EPA chose 2014 because the point, nonroad and non-point data provided in Tennessee's February 26, 2020, submissions, were the most currently available to the State at the time of the development of these SIP revisions. The mobile emissions were generated utilizing MOVES2014b, the applicable mobile emissions model at the time of the development of the SIP revision. For consistent comparisons, EPA obtained the 2014 mobile emissions submitted by Tennessee from EPA's EIS. Table 6 provides a summary for Hamilton County of the total emissions for NOx, VOC, and CO in 2014; total emissions for NOx, VOC, and CO in 2022 with the I/M program; and total emissions for NOx, VOC, and CO in 2022 without the I/M program.

Table 6: Hamilton County Area Emissions

Sector	2014 Emissions			2022 Projected Emissions With I/M			2022 Projected Emissions Without I/M		
	NOx	VOC	CO	NOx	VOC	CO	NOx	VOC	CO
Onroad	6,659	3,173	35,539	4,613	2,127	23,875	4,712	2,273	26,854
Point	1,024	664	458	1,314	825	566	1,314	825	566
Nonroad	3,252	1,587	13,594	2,220	935	11,600	2,220	935	11,600

[12] As shown in Table 5 above, 2014 is one of the years associated with attaining design values for the 2008 8-hour ozone NAAQS of 0.075 ppm. The 2008 8-hour ozone NAAQS was the applicable NAAQS for the 2015 ozone season. EPA notes that the 2015 8-hour ozone NAAQS of 0.070 ppm was not in effect until October 1, 2015.

Non-Point	2,037	5,212	7,038	1,220	5,744	7,007	1,220	5,777	7,007
Total	**12,972**	**10,636**	**56,629**	**9,367**	**9,632**	**43,049**	**9,467**	**9,778**	**46,028**
Percent reduction from 2014 emissions							27.0 %	8.1 %	18.7 %

As stated in the June 11, 2020, NPRM, for 2022, the removal of the I/M program accounts for a small increase in NOx and VOC onroad emissions. The difference in emissions in 2022, with and without the I/M program, is 100 tpy for NOx and 146 tpy for VOC. However, the total NOx emissions in 2022 without the I/M program are 3,505 tpy less than the total NOx emissions in 2014, and the total VOC emissions in 2022 without the I/M program are 858 tpy less than the total VOC emissions in 2014. For CO, the difference in emissions in 2022 with and without the I/M program is 2,979 tpy. However, the total CO emissions without the I/M program are 10,061 tpy less than the total CO emissions in 2014. Even without the I/M program in 2022, emissions of NOx, VOC, and CO are expected to decrease by 27.0 percent, 8.1 percent and 18.7 percent, respectively from 2014 levels.

Because 2022 total emissions without the I/M program are less than total 2014 base year emissions, EPA concludes that removal of the I/M program in Hamilton County will not interfere with attainment or maintenance of the NAAQS, or any other applicable CAA requirements. Additionally, as shown in Table 5, the highest ozone design value associated with 2014 is 4 ppb above the most recently available ozone design value for 2017-2019, thereby providing an additional buffer, and the 2017-2019 ozone design value is 6 ppb below the level of the 2015 8-hour ozone NAAQS of 70 ppb. EPA is concluding that it is not reasonable to expect emissions that are 3,505 tpy less than 2014 NOx emissions and 858 tpy less than 2014 VOC emissions would cause ozone levels to exceed the current 2015 8-hour ozone NAAQS. Also,

EPA is concluding that it is not reasonable to expect that emissions that are 10,061 tpy less than 2014 CO emissions would cause CO levels to exceed either the 1-hour or 8-hour CO NAAQS.

IV. Responses to Comments

EPA received numerous comments on the June 2020 NPRMs.[13] Two state representatives expressed objection to removal of the I/M program while several state representatives expressed strong support for removal of the I/M program and urged EPA to take quick action. For this response to comments, the comments have been grouped into the following categories: (1) air quality improvements/impacts; (2) Tennessee's technical demonstration; and (3) comments outside the scope of this rulemaking. EPA's responses to comments are provided below.

A. Responses to Comments Related to Air Quality Improvements/Impacts

EPA received numerous comments related to air quality and the potential impact of removing the I/M program on human health and the environment. EPA's evaluation of these comments and responses are provided below.

Comment A1: Several commenters raised concerns regarding how the removal of the "carbon emissions testing program"[14] will affect the health and wellbeing of the general population of Tennessee as well as vulnerable populations, elderly, and children. Many of these commenters are particularly concerned about those suffering from asthma or allergies. Some

[13] Comments are available on regulations.gov in dockets for EPA-R04-OAR-2019-0618 (Middle Tennessee Area) and EPA-R04-OAR-2019-0619 (Hamilton County).

[14] EPA assumes that the commenters are referring to Tennessee's I/M program. To the extent that the commenters may be raising concerns regarding the relationship between the I/M program and greenhouse gases (GHG) or climate change, EPA addresses those concerns in Response A6.

commenters state that vehicle emissions could cause shortness of breath, wheezing, coughing, pulmonary inflammation, and lung disease. Other commenters identify vulnerable populations, such as those with cardiovascular diseases, diabetes, or COVID-19, who could be particularly affected by vehicle emissions.

Response A1: The Middle Tennessee Area and Hamilton County are in compliance with all of EPA's NAAQS. EPA has established NAAQS for six of the most common air pollutants – CO, ozone, PM, NO_2, lead, and SO_2 – known as "criteria pollutants." Primary NAAQS are set to protect public health with an "adequate margin of safety," including the health of at-risk groups;[15] and secondary NAAQS are set to protect the public welfare, which includes effects on trees, plants, crops, and ecosystems. *See* CAA sections 108 and 109. Thus, EPA evaluates air quality criteria and impacts to public health and welfare as part of the comprehensive standard setting process. EPA's final rule revising each of the NAAQS includes a thorough explanation of human exposure and health risk assessments conducted in support of the Agency's review of evidence of exposures on human health effects, as well as detailed rationales for EPA's decisions on the relevant standards. *See, e.g.*, 80 FR 65291 (October 26, 2015) (containing an analysis of the most recent ozone NAAQS).

As presented in Section III of this notice, EPA's technical analysis, supported by the CAA section 110(l) demonstration, concludes that the Middle Tennessee Area and Hamilton

[15] For example, the rulemaking notice associated with the establishment of the 2015 ozone NAAQS states that the action provides increased protection for children, older adults, and people with asthma or other lung diseases, and other at-risk populations against an array of adverse health effects that include reduced lung function, increased respiratory symptoms and pulmonary inflammation; effects that contribute to emergency department visits or hospital admissions; and mortality. *See, e.g.*, 80 FR 65292 (October 26, 2015).

County will continue to comply with all NAAQS, including the most stringent NAAQS, set to protect public health and welfare, upon removal of the I/M program.

Comment A2: Several commenters express concern that removing the I/M program would harm the natural ecology and wildlife of Tennessee. Another commenter wrote that removing the I/M program could negatively affect food production. Both types of comments imply that removing the I/M program would worsen air quality, resulting in problems for the surrounding natural environment.

Response A2: As mentioned in Response A1, EPA has established primary and secondary NAAQS to protect human health and the environment. Each NAAQS, with the exception of CO, has both a primary and secondary NAAQS.[16] In some cases, the primary and secondary NAAQS are set at the same level. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The Middle Tennessee Area and Hamilton County are in compliance with all secondary NAAQS. For reasons explained in response to other comments in this final rulemaking notice, EPA disagrees that removing the I/M program for the Tennessee SIP will cause the Middle Tennessee Area and Hamilton County to violate any NAAQS. Tennessee's technical demonstrations, described in EPA's June 2020 NPRMs (and which are being approved in this final rule), support EPA's conclusion that the removal of the I/M program for both the Middle Tennessee Area and Hamilton County will not interfere with attainment or maintenance of the

[16] *See* https://www.epa.gov/criteria-air-pollutants/naaqs-table.

NAAQS or any other applicable requirements of the CAA. Further information concerning EPA's evaluation of Tennessee's technical demonstrations can be found in Response B1. The commenters do not provide any technical information to support their position or indicate that interference with maintenance of the secondary NAAQS would result upon removal of the I/M program in the Middle Tennessee Area or Hamilton County. EPA has determined that upon removal of the I/M program, the Middle Tennessee Area and Hamilton County will continue to be in compliance with all secondary NAAQS, which are set to address the types of human welfare concerns raised by the commenters.

Comment A3: A commenter asserts that air quality is getting worse in the Middle Tennessee Area and showing a flat trend in ozone design values in the Hamilton County region. With respect to the Middle Tennessee Area, a commenter claims that while current ozone NAAQS-related design values are below the standard, recent observations in air quality in the Area have shown an upward trend in highest ozone concentrations, indicating the reversal of improvements resulting from "existing control programs" such as Tennessee's I/M program. The commenter goes on to explain that "[a]dditionally, when comparing monitor-level 4th high ozone [maximum daily average ("MDA8")][17] concentrations for receptors in the Middle Tennessee region, values that are used by EPA in determining ozone attainment and designations, not a single monitor has shown a decrease between 2014 and 2018. In fact, of the five monitors in the domain, . . . three show no change in 4th high MDA8 concentrations between the two years while the other two monitors show an increase of up to 3 parts per billion

[17] In its comments regarding the Middle Tennessee Area, the commenter appears to use the term "MDA8" to refer to the maximum 8-hour daily average ozone concentration in a given year at a monitor.

(ppb) in the MDA8 concentration observed." The commenter also points to an "upward trend in highest concentrations across all monitors, in particular the maximum concentration exceeded 0.085 in 2018." The commenter also asserts that ozone is increasing in the Middle Tennessee Area based on EPA's Air Quality Index (AQI) and points to increases in the number of unhealthy days for sensitive groups and the maximum AQI value per year.

With respect to Hamilton County, the commenter claims that while current ozone NAAQS-related design values are below the standard in Hamilton County, recent observations in air quality in the "region" have shown a flat trend in air quality. The commenter goes on to explain that, "[w]hen comparing monitor-level ozone MDA8[18] concentrations for receptors Hamilton County, Tennessee, values that are used by EPA in determining ozone attainment and designations, neither monitor has shown air quality improvement between 2015 and 2018. In fact, . . . both monitors in the domain . . . show no change in MDA8 concentrations between the two years with increases in value (poorer air quality) in the intermediate years."

Response A3: As discussed above in Response A1, EPA sets the NAAQS at levels protective of public health and welfare. With respect to ozone, the most recent 2015 8-hour ozone NAAQS is met if the annual 4th highest daily maximum 8-hour ozone concentration, averaged over three years, is equal to or less than 70 ppb. *See, e.g.*, 80 FR 65292 (October 26, 2015) (containing an analysis of the most recent ozone NAAQS). In setting this standard, EPA considered all of the components of the NAAQS (indicator, averaging time, level, and form)

[18] In its comments regarding Hamilton County, the commenter appears to use the term "MDA8" to refer to the ozone design value at a monitor. The design value at a monitor for the 8-hour ozone NAAQS is the annual 4th highest daily maximum 8-hour ozone concentration averaged over three years.

collectively, and determined that the standard provided the requisite protection of public health and welfare. *See id.*

EPA agrees with the commenter that the Middle Tennessee Area and Hamilton County are currently attaining all of the ozone NAAQS, including the current 2015 8-hour ozone standard. EPA must evaluate these SIP revisions for consistency with CAA section 110(l) which prohibits the Agency from approving revisions that would interfere with any applicable requirement regarding attainment or any other CAA requirement. EPA reviews SIP revisions, like removal of the I/M program from Tennessee's SIP, to determine whether they meet the applicable requirements of the CAA, including section 110(a)(1) which requires SIPs to provide for implementation, maintenance, and enforcement of the NAAQS. *See* CAA section 110(k)(2), (3). EPA considers the status of an area attaining the NAAQS when EPA evaluates whether a SIP revision will interfere with attainment or maintenance of the NAAQS.[19]

In response to concerns about increasing ozone concentrations raised by the commenter, EPA evaluated the air quality trends in both the Middle Tennessee Area and Hamilton County. The results of this analysis, discussed in detail below and in Section III, show that while both areas have observed yearly variability in measured ozone concentrations, there is not a strong increasing or decreasing trend in the ozone concentrations in either area since 2013. Both areas, along with several other areas in the southeastern United States, measured significantly higher ozone concentrations in 2012. These high concentrations were primarily the result of

[19] Year to year changes in ozone levels result both from changes in precursor pollutant emissions and from fluctuations in meteorological conditions. This was taken into consideration in the development of the NAAQS and resulted in a protective standard that is based on a 3-year average of 4th maximums at an individual monitor.

meteorological conditions that were very conducive to ozone formation (high temperature, low wind speed, and moderate relative humidity). Both areas have continued to attain 2008 8-hour ozone NAAQS and the 2015 8-hour ozone NAAQS after each became effective.[20] EPA uses a three-year design value to determine NAAQS compliance in order to account for the inherent yearly variability in ozone concentrations due to variations in meteorology, which can impact ozone levels during periods with similar emissions levels.

As shown in Table 5, below, the highest design value for the five ozone monitors in the Middle Tennessee Area is 72 ppb in 2014 (using 2012-2014 data), 67 ppb in 2015 (using 2013-2015 data), 67 ppb in 2016 (using 2014-2016 data), 66 ppb in 2017 (using 2015-2017 data), 67 ppb in 2018 (using 2016-2018 data), and 66 ppb in 2019 (using 2017-2019 data). Since the 2013-2015 design values, the Area's design values do not indicate a strong increasing or decreasing trend, and have remained below the 2015 8-hour ozone NAAQS.

Table 7: Middle Tennessee Ozone Monitor Design Values*, ppb**

Monitor Name	County	Design Value	Design Value	Design Value	Design Value	Design Value	Design Value

[20] As shown in Table 7, 2014 is one of the years associated with attaining design values for the 2008 8-hour ozone NAAQS of 0.075 ppm. The 2008 8-hour ozone NAAQS was the applicable NAAQS for the 2015 ozone season. EPA notes that the 2015 8-hour ozone NAAQS of 0.070 ppm was not in effect until October 1, 2015, and all design values, beginning with the 2014-2016 design value, attained the 2015 8-hour ozone NAAQS.

		2012-2014	**2013-2015**	**2014-2016**	**2015-2017**	**2016-2018**	**2017-2019**
East Health/Trinity Lane	Davidson	*	*	66	65**	66	65
Percy Priest Dam	Davidson	70	65	67	64	67	65
Hendersonville	Sumner	72	67	67	66	66	66
Fairview Middle School	Williamson	66	62	61	60	60	60
Cedars of Lebanon	Wilson	67	62	64	63	*	*

*No valid design value due to incomplete data. The Cedars of Lebanon site had incomplete data in 2018 because there was an issue following the installation of a new monitoring shelter, and TDEC invalidated data collected before the issue was corrected. The East Health / Trinity Lane site had incomplete data in 2013.

**In the June 11, 2020, NPRM (85 FR 35607), EPA inadvertently stated that the 2015-2017 Design Value was 66 ppb. The correct value is 65 ppb.

*** The Middle Tennessee area was in attainment with the most recent effective ozone NAAQS for the entire period. 2012-2014 and 2013-2015 design values were attaining the 2008 8-hour ozone NAAQS of 0.075 ppm. EPA notes that the 2015 8-hour ozone NAAQS of 0.070 ppm was not in effect until October 1, 2015, and all design values after this date attained the 2015 standard.

As shown in Table 8, the highest design value for the two ozone monitors in Hamilton County is 69 ppb in 2014 (using 2012-2014 data), 66 ppb in 2015 (using 2013-2015 data), 68 ppb in 2016 (using 2014-2016 data), 67 ppb in 2017 (using 2015-2017 data), 66 ppb in 2018 (using 2016-2018 data), and 64 ppb in 2019 (using 2017-2019 data). Since the 2013-2015 design values, the area's design values do not indicate a strong increasing or decreasing trend and have remained below the 2015 8-hour ozone NAAQS.

Table 8: Hamilton County Ozone Monitor Design Values, ppb

Monitor Site Name	**Design Value 2012-2014**	**Design Value 2013-2015**	**Design Value 2014-2016**	**Design Value 2015-2017**	**Design Value 2016-2018**	**Design Value 2017-2019**
Eastside Utility	69	66	68	67	66	64
Soddy Daisy High School	67	64	65	65	64	64

EPA also evaluated the annual 4th maximum daily maximum 8-hour ozone concentrations for each site in both areas (shown in Table 9). As discussed above, it is common for monitors to measure annual variability in ozone concentrations due to several factors. These annual values do not generally indicate a strong increasing or decreasing trend at any of the monitors in the Middle Tennessee Area or Hamilton County.

Table 9: Middle Tennessee Area and Hamilton County: Annual 4th Highest Daily Maximum 8-hour Ozone Concentrations, 2012-2019

Monitor Site Name	County	AQS ID	2012	2013	2014	2015	2016	2017	2018	2019
East Health	Davidson (Middle Tennessee Area)	47-037-0011	76	*	65	67	66	64	68	65
Percy Priest Dam	Davidson (Middle Tennessee Area)	47-037-0026	*	60	71	64	68	62	71	63
Soddy-Daisy High School	Hamilton	47-065-1011	77	61	64	68	65	64	64	64
Eastside Utility	Hamilton	47-065-4003	77	64	67	68	69	65	64	65
Hendersonville	Sumner (Middle Tennessee Area)	47-165-0007	83	68	66	67	68	64	68	66
Fairview Middle School	Williamson (Middle Tennessee Area)	47-187-0106	74	62	63	61	61	58	63	60
Cedars of Lebanon	Wilson (Middle Tennessee Area)	47-189-0103	77	62	64	61	67	61	64	60

* Indicates that a monitor did not meet annual data completeness criteria for a given year

Finally, for both areas, EPA evaluated the annual number of days with monitored exceedances of the 2015 8-hour ozone NAAQS, where the daily maximum 8-hour ozone concentration at any monitor in the area exceeded 70 ppb. This is equivalent to the number of

days with an ozone AQI above 100 and the number of days with an AQI category of "unhealthy for sensitive groups" or worse. The results of this analysis are shown in Table 10. Similar to the data presented above, these values show year to year variability in the ozone concentrations in both areas, but neither area shows a strong increasing nor decreasing trend in the frequency of days above the 2015 8-hour ozone NAAQS.

Table 10: Middle Tennessee Area and Hamilton County: Annual Count of Days with Daily Maximum 8-hour Ozone Concentrations Above 70 ppb, 2012-2019

Area	2012	2013	2014	2015	2016	2017	2018	2019
Middle Tennessee	31	0	6	1	4	1	6	1
Hamilton County	8	1	1	3	2	2	1	0

*****For consistency, EPA evaluated the number of days above 70 ppb (the level of the 2015 8-hour ozone NAAQS) for all years. Note that this standard was not effective until October 1, 2015. Some of the days counted in 2012-2015 were not exceedances of the 2008 ozone NAAQS of 75 ppb, which was effective at the time this data was collected.

Comment A4: Several commenters indicate air quality will worsen by no longer requiring the monitoring of emissions, and therefore the I/M program should not be removed. One commenter in reference to the Middle Tennessee Area stated that "[d]ropping the I/M program will increase NOx by 478 tons per year and VOC by 593 tons per year," and asserts that the analysis "likely underestimates the deterioration of air quality that will occur," concluding that the emissions increases put "Tennessee at risk of violating the standard in the future." At least one commenter also implied that removal of the I/M program would remove the ambient air monitoring requirements for the areas.

Response A4: There is no evidence that air quality will worsen to the point of violating the NAAQS by no longer requiring periodic testing of emissions from individual vehicles in

Tennessee. It is important to note that I/M programs require scheduled testing of a vehicle's tailpipe and evaporative emissions to determine the effectiveness of existing emission controls on that individual vehicle. Emissions controls are not specifically required by I/M programs but rather are required for all light-duty vehicles pursuant to EPA's vehicle emission standards as discussed further below in this response. I/M programs reduce the emissions of certain pollutants (primarily NOx, VOC, and CO) by identifying individual vehicles with malfunctioning or deteriorated emission control systems and requiring the repair of these vehicles to bring them closer to their original certification levels. As discussed in Section III, above, the projected combined (point, non-point, onroad and non-road) NOx, VOC, and CO emissions increases for the 2022 scenarios with and without the I/M program will not impact the Areas' attainment of the ozone NAAQS given that total emissions of these pollutants in 2022 without the I/M program will be well under the total emissions in 2014 and given the current design values for the Middle Tennessee Area and Hamilton County.

Further, EPA has promulgated multiple federal requirements for engine and fuel standards to ensure that passenger vehicles are cleaner since the 2000s. On February 10, 2000, EPA issued the Tier 2 passenger (light duty) vehicle standards. *See* 65 FR 6698. The standards set stringent emissions standards for passenger vehicles, as well as limits on the amount of sulfur, a naturally occurring contaminant, in gasoline. Limiting sulfur in gasoline allows emissions reduction technologies like catalysts to be significantly more effective in reducing NOx and other pollutants. Vehicles and their fuels continue to be an important contributor to air pollution. EPA in 2014 issued standards commonly known as Tier 3 (79 FR 23414, April 28,

2014), which consider the vehicle and its fuel as an integrated system, setting new vehicle emissions standards and a new gasoline sulfur standard beginning in 2017. The vehicle emissions standards reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles. The gasoline sulfur standard enables more stringent vehicle emissions standards and make emissions control systems more effective. These rules further cut the sulfur content of gasoline. Cleaner fuel makes possible the use of new vehicle emission control technologies and cuts harmful emissions in existing vehicles. These standards will continue to reduce atmospheric levels of ozone (of which NOx and VOC are the primary precursors), PM, NO_2, and toxic pollution. Also, cessation of the I/M program will not yield an immediate change in vehicle emissions. The I/M program's benefits will continue for a period of time after its cessation, as vehicles inspected and/or repaired up until that time would continue to operate in a manner that meets the emissions specification of the program.

EPA also notes that the removal of the I/M program from Tennessee's SIP does not remove the ambient air quality monitoring requirements that the State must comply with pursuant to 40 CFR part 58. Ambient air quality monitoring will continue in these areas without the I/M program in the Middle Tennessee Area and Hamilton County.

Comment A5: Some commenters mention that air quality is poor in the Middle Tennessee Area and Hamilton County. Commenters refer to 2018 and 2019 reports from the American Lung Association (ALA).[21] One commenter states that in the 2019 ALA report,

[21] Commenters did not provide either ALA report with their comments. EPA has retrieved these reports and is providing them in the dockets for this final rulemaking.

"Hamilton County received a 'D' rating ranking it among the worst counties in Tennessee for air quality." Other commenters express concern with breathing unhealthy air in Nashville, with one commenter stating that in 2019, "Nashville plummeted to the bottom of the American Lung Association's [ALA's] State of Air report with unhealthy levels of ozone that put 'citizens at risk for premature death and other health effects. . . .'" Commenters state that "Tennessee achieved attainment status in 2017" but also note that the ALA's "annual State of Air Report indicates air quality across the country is beginning to decline," and that 4 in 10 Americans are living with unhealthy air. A commenter further states that "Emissions testing is important to ensure Tennessee stays in attainment and continues to improve its air quality." The commenters also request that EPA "allow local governments the ability to opt-in to testing and use this tool to protect air quality."

Response A5: First, EPA notes that Tennessee is meeting all of the NAAQS for all areas in the State with one exception, discussed below. As further detailed in EPA's June 2020 NPRMs, air monitoring data for EPA's most recent and stringent health-based NAAQS demonstrate compliance with these NAAQS in most areas of Tennessee, including the Middle Tennessee Area and Hamilton County. State and local agencies submit air monitoring data annually and EPA evaluates this data for compliance with the NAAQS on an annual basis. *See* 40 CFR 58. Tennessee's 2019 data for compliance with the NAAQS was certified in April 2019. EPA has a robust process to establish the NAAQS and sets the NAAQS at a level requisite to protect human health and the environment. Tennessee's compliance with the NAAQS inherently means that citizens in such areas are breathing air that are protective of human health. Second,

EPA notes that ALA uses a different methodology in "grading" areas than EPA uses in evaluating areas for compliance with the NAAQS. *See* 2019 ALA report pages 51-54 (discussing the methodology used by ALA in grading areas). As discussed in Response A3, EPA evaluates SIP revisions for compliance with the NAAQS. EPA notes that the statement in the ALA report that 4 in 10 Americans are living with unhealthy air is not a direct reference to areas in Tennessee.

With respect to commenters' assertions that the I/M program should be maintained to ensure continued compliance with the NAAQS and requests that local areas be allowed to opt-in to I/M programs, EPA disagrees in part. EPA notes that Tennessee currently implements the I/M program as part of the State's discretionary measures to attain and maintain the NAAQS. CAA section 110(l) provides that the Administrator cannot approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment, or any other applicable requirement of the CAA. In addition, section 110(k) of the CAA requires EPA to approve SIP revisions that meet all applicable CAA requirements. As further discussed in Section III of this notice, EPA has determined that section 110(l) requirements have been met because removal of the I/M program will not interfere with attainment or maintenance of any NAAQS or any other requirement of the CAA. Therefore, because EPA has determined that the SIP revisions meet all applicable requirements, EPA is approving Tennessee's request to remove the I/M program from the SIP. EPA's action to remove the I/M program does not preclude the state or local government from maintaining an I/M program at the state or local level.

The one exception where Tennessee's air quality does not meet the NAAQS is a portion

of Sullivan County, Tennessee, that encompasses the Eastman Chemical Plant. In 2013, EPA designated a portion of Sullivan County nonattainment for the 2010 1-hour SO_2 NAAQS. CAA section 191 requires Tennessee to develop a plan to bring the area back in attainment with the SO_2 NAAQS as expeditiously as possible. As noted in the June 2020 NPRMs (85 FR 35037 and 85 FR 35607), the pollution control systems for light-duty gasoline vehicles subject to the I/M program are not designed to reduce emissions for SO_2; therefore, removing the I/M program requirements will not have any impact on ambient concentrations of SO_2.

Comment A6: Some commenters indicated that removal of Tennessee's I/M program would cause greater increases or would exacerbate issues with pollutants uninvolved in ozone formation (i.e., pollutants other than NOx or VOCs). Others worried that removing the I/M program as Tennessee grows warmer would result in increased ozone formation. The commenters also mention concerns about greater emissions in PM pollution, CO, and greenhouse gases (GHGs) (i.e., methane and carbon dioxide (CO_2)). Some of the commenters that are worried about an increase in GHGs had concerns stemming from a general worry about climate change. Another commenter expressed concerns about increases in emissions in general, but also acknowledged that ozone formation in Tennessee appears to be limited by NOx.

Response A6: With regard to PM emissions, EPA noted in the June 2020 NPRMs and in this action that I/M programs are not designed to reduce direct PM emissions. In fact, EPA's state-of-the-science Motor Vehicle Emission Simulator modeling system, MOVES, calculates no benefit for direct PM emission reductions from an I/M program. In addition, EPA notes that, separate and apart from I/M, there may be PM emission benefits in future years due to expected

fleet turnover and continued implementation of EPA's engine and fuel standards. Furthermore, PM formation in Tennessee is dominated by sulfates. As noted in the June 2020 NPRMs, the Middle Tennessee Area and Hamilton County are well in compliance with the PM standards.

As noted in Section III of this notice and the June 2020 NPRMs, the Middle Tennessee Area and Hamilton County are well in compliance with the CO standards. In support of its non-interference demonstration and as discussed in EPA's June 2020 NPRMs, Tennessee used the MOVES2014b mobile emissions modeling to determine the change in emissions for CO resulting from the removal the I/M program in the Middle Tennessee Area and Hamilton County. The results show an increase in CO emissions of 6.1 percent for the Middle Tennessee Area, and of 6.9 percent for Hamilton County for scenarios in 2022 with and without the I/M program. However, there is a decrease in total CO emissions from all source categories from 2014 to 2022. For reasons described in Section III of this notice, EPA has concluded the removal of the I/M program from the Middle Tennessee Area and Hamilton County is consistent with the CAA.

In terms of ozone, EPA agrees with the commenter that Tennessee is NOx limited and so that would be the precursor of most consideration related to potential impacts. As discussed in Section III, there is a decrease in total NOx emissions from all source categories from 2014 to 2022. EPA also notes that the I/M program does not have a direct impact on GHGs and is not designed to reduce emissions associated with climate change, such as GHGs.

Comment A7: Some commenters asserted that rural and urban areas face different issues when it comes to pollution and air quality. In particular, commenters were concerned that dropping the I/M program in urban areas, which they claimed tend to have significantly more

emissions, would increase emissions not only for those areas, but also for surrounding rural areas, and potentially cause future violations of the standard.

Response A7: EPA agrees that air quality is important. As discussed above and in EPA's June 2020 NPRMs, the Middle Tennessee Area and Hamilton County are in attainment or maintenance for all criteria pollutants. The Agency has provided detailed information showing that the monitors in the Middle Tennessee Area and Hamilton County that collect complete, quality assured and certified data for recent years have design values that are less than the ozone, PM, and CO standards. The trends continue to meet the NAAQS, even as population and vehicles increase not only in the Middle Tennessee Area and Hamilton County, but statewide. While commenters seem to make a distinction between emissions from urban areas versus rural areas, the commenters do not provide information to indicate that removal of the I/M program in the Middle Tennessee Area and Hamilton County will cause a violation of the NAAQS in those areas or any surrounding rural areas. As mentioned in Response A4, EPA also notes that removal of the I/M program from the Tennessee SIP does not impact federal vehicle and fuel standards that EPA has promulgated in separate rulemakings and such standards will continue to result in significant emission reductions from the operation of vehicles, whether in rural or urban areas.

Comment A8: A commenter implies that removal of the I/M program will interfere with future visibility at the Great Smoky Mountains National Park.

Response A8: EPA disagrees with the commenter's assertion that removal of the I/M program will interfere with visibility at the Great Smoky Mountains National Park. Visibility

impairment in the Southeast is primarily dominated by sulfates. Sulfate particles form in the air from SO_2 gas. Most of this gas is released from coal-burning power plants and other industrial sources, such as smelters, industrial boilers, and oil refineries. As discussed in the June 2020 NPRMs and Section III of this notice, the pollution control systems for light-duty gasoline vehicles subject to the I/M program are not designed to reduce emissions of SO_2 or the broader group of sulfates. In addition, as discussed in Section III, above, total NOx emissions in 2022 without the I/M program are significantly less than total NOx emissions in 2014 for the Middle Tennessee Area and Hamilton County.[22] EPA also notes that there are separate CAA requirements related to visibility, known as regional haze, that all states must comply with. Removal of the I/M program will not remove these requirements which are separate and apart from the I/M requirements that individual areas may have.

Comment A9: Several commenters express concerns about population and vehicle growth and the possible impacts on air quality.

Response A9: As mentioned in more detail in this final rulemaking notice, vehicles are, and continue to become, cleaner because of EPA's engine and fuel standards. Although the population may grow and lead to more vehicles, new vehicles will be covered by the most recent vehicle emissions standards and be operated with gasoline that complies with the most recent federal requirements.

Comment A10: A commenter states that "In east Tennessee there is no air emissions testing and the air quality is very poor. The transportation sector is a major contributor of poor

[22] NOx emissions can convert to visibility impairing nitrates in the atmosphere.

air quality, therefore all vehicles must meet the original manufacturers specification's and all aftermarket modifications to vehicle exhaust and emissions equipment must be made illegal."

Response A10: EPA does not agree with the commenter that air quality is very poor in east Tennessee. As mentioned in Response A1, all areas in Tennessee are in compliance with the NAAQS with the exception of a small portion of Sullivan County in the eastern part of the State that is designated as nonattainment for the SO_2 NAAQS. Also, EPA does not understand what the commenter means by "…no air emissions testing." As noted in Response A4, this action does not remove the ambient air quality requirements that Tennessee is subject to statewide. To the extent that the commenter is referring to vehicle emissions testing, EPA notes that, with respect to SIPs, "each State is given wide discretion in formulating its plan," so long as the revision is consistent with the CAA, including section 110(l). *See Union Elec. Co. v. EPA*, 427 U.S. 246, 250 (1976); *see also Alabama Envtl. Council v. EPA*, 711 F.3d 1277, 1280 (11th Cir. 2013), *Sierra Club v. EPA*, 939 F.3d 649, 673 (5th Cir. 2019), and *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 470 (2004).

EPA agrees with the commenter that the transportation sector is an important sector for maintaining air quality and as discussed in Response A4, EPA has taken steps to control emissions from the transportation sector, such as the federal vehicle and fuel standards that will continue to provide benefits without the implementation of the I/M program in Tennessee. EPA also notes that the commenter's statements related to vehicle exhaust and emissions equipment are not impacted by or within the scope of this rulemaking.

Comment A11: One commenter suggested that the topography of Chattanooga would exacerbate poor air quality if EPA removed the local I/M program. Specifically, the Commenter explains that since Chattanooga is surrounded by mountains, the city suffers from a "well-known inversion effect" that traps pollutants in it during certain times of the year. Another commenter explained that Nashville sits in a depression called the "Nashville or Central Basin," which tends to cause air to stagnate over the entire area. Both commenters argued that these unique geographical features would exacerbate poor air quality if EPA removed the I/M program.

Response A11: EPA disagrees that the Middle Tennessee Area and Hamilton County have "poor air quality," as both areas currently meet all of the NAAQS, which is explained in more detail in Response A1. EPA does not have evidence to indicate that the removal of the I/M program from either the Middle Tennessee Area or Hamilton County will exacerbate poor air quality because of the unique geographical features in each area. While it is important to identify and mitigate vehicles that are not properly functioning and as a result may increase emissions, most vehicles are not producing increased emissions. Since the 2000s, with EPA's promulgation of federal requirements for engine and fuel standards, passenger vehicles are cleaner. *See* Response A4 for more information on the engine and fuel standards.

B. Responses to Comments Related to the Non-interference Demonstration

EPA received technical comments asserting that the non-interference demonstration is inadequate to approve the SIP revisions. EPA's evaluation of these comments and responses are provided below.

Comment B1: The commenter asserts that the non-interference demonstrations cannot be considered technically complete without air quality modeling to simulate the impact of removing the I/M program. The commenter recommends "a full air quality simulation of the impact of removing the I/M program" – specifically suggesting the use of a transport grid model – to ensure that increases in air pollutant concentrations do not exceed NAAQS and health-based recommendations. The commenter also recommends that the "air quality simulation" utilize the "most current modeling platform and associated emission projections," as well as meteorological and base year inventories that meet EPA guidance. The commenter cites EPA SIP modeling guidance in support of its recommendations. To further support its modeling recommendation, the commenter expresses concerns regarding the use of historical trends in air quality and emissions to evaluate impacts of I/M program removal due to annual variations in meteorology and actual emissions and the need for a solid conceptual model of how ozone or $PM_{2.5}$ is formed in the areas.

Response B1: EPA does not agree with the commenter that air quality modeling is required in order for EPA or the State to assess, pursuant to section 110(l) of the CAA, whether removal of the I/M program from Tennessee's SIP will interfere with attainment or maintenance of the NAAQS or any other requirement of the CAA. EPA acknowledges that air quality modeling is an option that could be used to evaluate the impact of removal of the I/M program. However, other technical analyses that do not involve modeling may also be used for section 110(l) demonstrations.

EPA refers commenters to Section III of this notice for more detail related to EPA's non-interference analysis. Also, as further explained in EPA's June 2020 NPRMs and in this final rule, the pollution control systems for light-duty gasoline vehicles subject to the I/M program are not designed to reduce (and do not reduce) emissions for PM, lead, and SO_2 in Tennessee.

For CO and ozone, EPA reviewed Tennessee's MOVES2014b mobile modeling which estimated emissions in 2022 with and without the I/M program.[23] Tennessee developed an inventory based on the best available information to the State at the time of the submissions for both the Middle Tennessee Area and Hamilton County. EPA reviewed the inventory with and without the benefit of the I/M program for each area. As EPA noted in the June 2020 NPRMs, there was a slight increase in NOx and VOC onroad emissions for each area for 2022 for the scenarios with and without the I/M program. For ozone, EPA agrees with one commenter's statement that ozone formation in Tennessee is NOx-limited (i.e., ozone concentrations are most effectively reduced by lowering NOx emissions rather than VOC emissions).[24] Nonetheless, as discussed in Section III of this notice, EPA evaluated both the increases in onroad VOC and NOx to determine whether the increase in total emissions in 2022 would interfere with attainment or maintenance of the ozone NAAQS in either area. EPA's analysis presented in Section III demonstrates that total emissions in these areas are projected to decrease significantly

[23] Tennessee chose 2022 as the future year for the State's non-interference demonstrations because it is the year when the State anticipated that the Areas will cease implementation of the I/M program due to the CAA's SIP processing timeframe and the language of Tenn. Code Ann. § 68–201–119.

[24] As part of the Southeastern Modeling and Analysis Planning (SEMAP) project, Georgia Institute of Technology performed an analysis of the sensitivity of ozone concentrations in the Eastern U.S. to reductions in emissions of both NOx and VOCs and determined that the Southeast is NOx limited. This analysis was based off the 2007 and 2018 SEMAP modeling which used the Community Multi-scale Air Quality model, version 5.01 with updates to the vertical mixing coefficients and land-water interface. May 1st through September 30th was modeled using a 12-km modeling grid that covered the Eastern U.S.

from the 2014 base year to the 2022 future year, even if the I/M program is discontinued. The small increase in onroad emissions resulting from removal of the I/M program in 2022 are overcome by the continued decrease in total emissions, despite increases in vehicle miles travelled due to fleet turnover (i.e., old vehicles being replaced with new vehicles that meet more stringent engine standards).

EPA disagrees with the commenters' concerns regarding the use of historical trends in air quality and emissions to evaluate impacts of I/M program removal due to annual variations in meteorology and actual emissions and the need for a solid conceptual model of how ozone or $PM_{2.5}$ is formed in the areas. EPA acknowledges the importance of understanding the factors affecting ozone and $PM_{2.5}$ formation in an area, and Response A6 provides information about factors affecting ozone and $PM_{2.5}$ in Tennessee. Concerns about annual variations in meteorology are addressed in Response A3. EPA believes that the large decreases in emissions of NOx, VOCs, and CO described in Section III of this notice overshadow the effects of annual variations in actual emissions.

Although Tennessee included photochemical modeling sensitivity analyses to provide additional weight of evidence in its submissions and EPA described those analyses in the June 2020 NPRMs, they were not required and were not the basis for EPA's proposed determinations that removal of the I/M program from Hamilton County and the Middle Tennessee Area would not interfere with attainment or maintenance of the NAAQS or any other applicable CAA requirements. EPA's conclusion that these removals satisfy CAA section 110(l) is based on the

technical analysis presented in Section III of this notice, which is consistent with and provides additional support for the proposed conclusions set forth in the June 2020 NPRMs.

Comment B2: With respect to the commenter's concerns regarding the nonlinearity of ozone formation related to Tennessee's sensitivity analysis, the commenter reviewed EPA modeling[25] and "developed ozone source apportionment results and relationships between State-source category specific ozone source apportionment modeling and the seasonal NOx emissions used to develop the ozone concentrations," which, the commenter states, "provide indicators of relative contribution of source regions (states) and categories (e.g., motor vehicle) NOx and VOC emissions to downwind monitor ozone concentrations." The commenter asserts that this analysis indicated that "emissions from motor vehicle sources contribute the greatest relative concentration from U.S. anthropogenic emissions to the monitors," in the areas and estimates that localized reductions (in the areas of analysis) would have a larger relative impact on ozone concentrations (as compared to statewide estimations). The commenter also developed regional "impact factors," and asserts that the commenter found (using updated emissions, projections, and models) "that the relative impact of NOx emissions from mobile sources in Tennessee have factors significantly higher than most other regional-category combinations, leading us to conclude that motor vehicle and nonroad source emissions have the greatest impact on ozone concentrations" in the Areas. The commenter did not provide the modeling files, just the summary of the results in the comments.

[25] The commenter based their analysis on the Comprehensive Air quality Model with eXtensions/Ozone Source Apportionment Technology (CAMx/OSAT) modeling platform that EPA prepared for the CSAPR Close-out. *See* 83 FR 65878, 65887-88 (December 21, 2018).

Response B2: As discussed in Section III of this notice, EPA's analysis relies on an emissions inventory comparison to determine whether the Middle Tennessee Area and Hamilton County would continue to attain the ozone and CO NAAQS after removal of the I/M program. EPA is not relying on an ozone sensitivity analysis to determine that removal of the I/M program would not interfere with attainment or maintenance of the NAAQS. Therefore, the alleged deficiencies related to nonlinearity of ozone formation from NOx and VOC precursors in Tennessee's sensitivity analyses are irrelevant. As noted in other comment responses in this notice, the State has primacy over air quality planning and has the authority to determine which source categories to control to maintain the NAAQS. Under the CAA, the sole issue for EPA's consideration in this rulemaking is whether removing the I/M program from the SIP for these two areas would be consistent with CAA provisions, including whether discontinuation is expected to interfere with attainment and maintenance of air quality standards. As discussed further in Section III of this notice, EPA is approving removal of the I/M program from the SIP because removal is consistent with the requirements of the CAA, including attainment and maintenance of the NAAQS.

Comment B3: A commenter asserts that Tennessee's MOVES modeling did not use appropriate assumptions, pointing to changes in federal Corporate Average Fuel Economy (CAFE) standards, Reid Vapor Pressure (RVP) standards, and biofuel blending requirements that were not included in the model. The commenter asserts that EPA must either conduct the modeling itself using the appropriate inputs to confirm that there will be no interference with the

NAAQS or disapprove the non-interference demonstration and require the State to do the correct modeling.

Response B3: EPA disagrees with the commenter. EPA reviewed the MOVES2014b modeling that was submitted by Tennessee to support the non-interference demonstration and concluded that the State used appropriate assumptions for the model and performed the modeling in accordance with EPA's MOVES Technical Guidance.[26] Tennessee used the MOVES2014b model which was the latest version of the model available at the time that the State submitted its SIP revisions.[27]

Regarding the changes to the CAFE standards, the National Highway Traffic Safety Administration has finalized the revisions to the CAFE standards for light duty vehicles.[28] However, that final action does not have any impact on Tennessee's demonstration related to removal of the I/M program. The vehicles affected by the revised CAFE standards would still need to meet applicable criteria pollutant emissions standards (e.g., the Tier 3 emissions standards; *see* 79 FR 23414).

[26] *See* EPA's July 2014 "Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes" (hereinafter MOVES 2014 Guidance). This document is available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100K4EB.pdf.

[27] EPA released the latest mobile modeling platform, MOVES3, on November 16, 2020, approximately nine months after Tennessee submitted its SIP revisions, and EPA only recently announced MOVES as EPA's official model for future SIP development outside of California (January 7, 2021, 86 FR 1106). EPA's November 2020 Policy Guidance on the Use of MOVES3 for State Implementation Plan Development, Transportation Conformity, General Conformity, and Other Purposes (EPA-420-B-20-044) (hereinafter MOVES3 Policy Guidance) notes that "[s]tates should use the latest version of MOVES that is available at the time that a SIP is developed." This document is available at https://www.epa.gov/sites/production/files/2020-11/documents/420b20044_0.pdf.

[28] *See* "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks," 85 FR 24174 (April 30, 2020).

Regarding RVP and biofuel blending requirements, EPA reviewed and concurred that the selected fuel formulations (including those for biofuels) for the modeled mobile emissions accurately reflect the Areas' profiles. The fuel formulation encompasses all the properties for that particular fuel (i.e., sulfur levels, benzene, and RVP).

Comment B4: A commenter raises a number of concerns with regard to the sensitivity analysis that was provided as part of the State's non-interference demonstration. The commenter asserts that the wrong inventory was used, stating that Tennessee used the "outdated and inappropriate 2014 National Emission Inventory (NEI) for base year and future year emission assumptions," which the commenter claims is contrary to EPA guidance. The commenter states that "EPA and others have concluded that 2014 is not useful for ozone sensitivity simulations," specifically asserting that 2014 was not conducive to ozone formation and did not contain high ozone periods adequate for an assessment of the impact of control technologies and air quality response. The commenter asserts that newer modeling platforms have been released with vastly improved estimates (specifically citing to a 2016 NEI).[29] The commenter specifically points to differences in NOx and VOC estimates in the later-released platforms, and provides a comparative analysis between the 2014 NEI and a 2016 NEI for Hamilton County and the Middle Tennessee Area. The commenter acknowledges that the 2014 NEI was the most current version at the time that Tennessee conducted its analysis. The commenter recommends the analysis be revised using the most current modeling platform and associated emission projections, and specifically references the 2016 NEI. The commenter also recommends

[29] The commenter's phrase "2016 NEI" appears to refer to the 2016v1 emissions modeling platform produced by the National Emissions Inventory Collaborative.

modeling be conducted using a meteorological and associated base year inventory that meets the requirements of EPA guidance for the determination of impact of control strategies and air quality response.

The commenter also claims that old and inappropriate assumptions were used, expressing concerns that the ozone sensitivity study was based on the 2007 SEMAP data projected to 2018. The commenter asserts that the non-interference analysis misuses the SEMAP study and points toward language in the report stating that "these factors should not be used for anything other than identical conditions to those in the SEMAP analysis." The commenter asserts that the demonstration assumes a similar response in 2022, and that there is no basis for this assumption. The commenter characterizes the information from the SEMAP report as "brute force factors" that are not applicable because the factors are not tailored to the I/M removals in the Middle Tennessee Area and Hamilton County. The commenter points to differences between SEMAP projections and actual emissions as reported in the 2016 NEI, expressing concern about the ratios of NOx and VOCs used in the non-interference demonstration. The commenter further asserts that the SEMAP data underestimates the "contribution of vehicles to the inventory" as compared to the 2016 NEI. The commenter also asserts that recent modeling indicates that onroad emission increases – and specifically Tennessee's motor vehicle source category – have a greater impact on regional air quality than what the demonstration calculates (in part, due to the assumption that each ton of a precursor has an equal impact on ozone formation). The commenter concludes that the sensitivity factors used in the demonstration are "not directly applicable to today's ozone conditions and likely not representative of the air quality change due

to the removal of the I/M programs." The commenter further states that Tennessee's "recognition that its use of the scaling analysis would yield erroneous results should be adequate enough for the agency to reconsider using its analysis as a weight-of evidence approach to removal of the I/M program." If the analysis does not use air quality simulation, the commenter recommends an "'impact factor'-like application to determine the impact of the removal of the I/M program, [with] county and motor vehicle specific factors."

Response B4: As discussed above, EPA is not relying on Tennessee's sensitivity analysis in its determination that removal of the I/M program will not interfere with any applicable requirement under the CAA. EPA's conclusion that removal satisfies CAA section 110(l) is based on the technical analysis described in Section III of this notice.

Comment B5: A commenter discusses and compares a Georgia analysis to relax RVP requirements with the analysis to support removal of the Tennessee I/M program. The commenter points to two aspects of the Georgia analysis that differ from the Tennessee analysis: the substitution of quantifiable, permanent, surplus, enforceable, and contemporaneous measures to achieve equivalent emissions reductions to offset potential emissions increases; and a demonstration that emissions are well below (and will not exceed) motor vehicle emissions budgets (MVEBs). The commenter asserts that Tennessee's analysis to remove the I/M program does not include offsets nor does the analysis calculate and provide additional support of meeting current and future year MVEBs. The commenter further asserts that the MVEBs for Hamilton County were never calculated, and that concern was expressed about the Middle Tennessee Area meeting "the old MVEBs" at the Nashville Area Interagency Consultation Group meetings. The

commenter concludes that the request to remove the I/M program does not have a supporting analysis comparable to Georgia's and may fall short for EPA approval.

Response B5: EPA disagrees with these comments. With respect to the EPA-approved analysis to relax RVP requirements in Georgia, EPA notes that section 110(l) analyses are case-specific, and in the case of Georgia's request to relax RVP requirements for Atlanta, offsets were needed given the facts in that situation. *See* 84 FR 49470 (September 20, 2019). Unlike Georgia, Tennessee has no areas designated as nonattainment or maintenance for the ozone NAAQS and does not currently have any violating ozone monitors. As discussed in Section III above, EPA is concluding that removal of the I/M program from the Tennessee SIP will not interfere with attainment or maintenance of the NAAQS or any other applicable requirement of the CAA.

In addition, motor vehicle emission budgets (sometimes referred to in practice as "MVEBs") are a component of the regional emissions analysis for implementing transportation conformity requirements. *See* 40 C.F.R. 93.101 and 93.118. These comments are not relevant to this rulemaking because neither the Middle Tennessee Area nor Hamilton County are required to demonstrate transportation conformity for any pollutant, and therefore no such budgets are required to be developed for either area.

Comment B6: With respect to Hamilton County,[30] a commenter states "Tennessee appears to be taking credit for closures of three [Tennessee Valley Authority (TVA)] power plants in its non-interference demonstration." The commenter then goes on to assert that EPA

[30] This comment was received in docket EPA-R04-OAR-2019-0619 only.

cannot allow offsets for Hamilton County from outside of the nonattainment area because that would be a violation of the *South Coast* decision. The commenter concludes that EPA must only consider offsets to the I/M program that occur within the nonattainment area.

Response B6: EPA disagrees with this comment. While the commenter does not provide a citation for the *South Coast* decision, EPA assumes the commenter is referring to the decision of the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) in *South Coast Air Quality Management District v. EPA*, 882 F.3d 1138, 1146 (D.C. Cir. 2018), which addressed section 182 of the CAA and upheld EPA's interpretation that states may not take credit for reductions outside a nonattainment area for purposes of interim milestones towards attainment. This decision is not relevant to today's action, as it addressed a different statutory provision not at issue here. Moreover, as discussed above, Tennessee is not providing offsets for the removal of the I/M program and, thus, no "credits" are being taken into account for facility closures or any other actions.

Comment B7: A commenter asserts that the trends in air quality in the two areas are inconsistent with reductions in precursor emissions, claiming that although emissions estimates for motor vehicles are decreasing, air quality is stagnant in Hamilton County and deteriorating in Middle Tennessee. The commenter also expresses concern about relying on the assumption that each ton of a pollutant precursor emission has an equal impact on air quality as compared to every other ton of the same pollutant precursor, regardless of emission source and where in the state the emissions occur, citing the uniqueness and nonlinearity of ozone precursors. The commenter states that onroad emission increases would have a greater impact on regional air

quality than calculated and that an increase in emissions due to the removal of the I/M program may have an accelerated deterioration impact on the Areas' air quality.

Response B7: The air quality data summarized in Response A3 demonstrates that ozone air quality in Hamilton County and the Middle Tennessee Area is not worsening and is well below the 2015 ozone NAAQS. As discussed in Section III, above, removal of the I/M program from the Tennessee SIP will not interfere with attainment or maintenance of the NAAQS or any other applicable requirement of the CAA. In addition, as discussed in Response A4, I/M programs do not mandate emission controls systems on motor vehicles, unlike federal motor vehicle emissions standards such as the Tier 3 rule. These federal vehicle emission standards will remain with or without the I/M program in the Tennessee SIP for the Middle Tennessee Area and Hamilton County.

Comment B8: A commenter asserts that EPA must take into account recent court decisions that will "have a devastating impact on the state's ability to ensure non-interference." The commenter specifically points to the "Wisconsin and New York decisions," which "vacated and remanded these programs back to EPA, essentially wiping them out entirely." The commenter claims that Tennessee cannot claim credit for any reductions attributable to the programs. Further, the commenter states EPA must check to make sure the state does not interfere with any downwind states' ability to meet the NAAQS.

Response B8: EPA has confirmed that the changes being approved by EPA in this action do not interfere with other states' ability to meet the 2008 ozone NAAQS. Although it is unclear from the comment, in describing programs promulgated under the good neighbor

provision, CAA section 110(a)(2)(D)(i)(I), EPA assumes the commenter is referring to the Cross-State Air Pollution Rule (CSAPR) Update. The CSAPR Update addresses NOx pollution transported to other states that significantly contributes to nonattainment or interferes with maintenance of the 2008 ozone NAAQS.[31] Among other things, the CSAPR Update requires reductions of NOx from power plants during the annual ozone season from May 1 to September 30 in 22 states, including Tennessee. Although for most covered states, EPA found the CSAPR Update may only partially address the covered states' good neighbor obligations, EPA found the rule fully addresses Tennessee's good neighbor obligation for this NAAQS. *See* 81 FR 74504, 74540. That conclusion was based on an assessment of air quality in the eastern U.S. with implementation of the CSAPR Update, and it accounted for emissions from all source sectors, including mobile sources.

The CSAPR Update was reviewed and generally upheld in *Wisconsin v. EPA*, 983 F.3d 303 (D.C. Cir. 2019). Contrary to the commenter's assertion that the rule was vacated, the D.C. Circuit merely remanded the rule without vacatur because, for states other than Tennessee, the rule did not provide a full remedy by the next relevant attainment date under CAA section 181. Thus, the CSAPR Update remains in effect. The decision in *New York v. EPA*, 781 F. App'x 4 (D.C. Cir. 2019) vacated a separate rule, the CSAPR Close-Out, but this rule did not impose additional reductions and only purported to demonstrate, based on new modeling analysis of the

[31] The CSAPR Update is a rule that followed the original CSAPR rulemaking in 2011. CSAPR requires certain states in the eastern half of the U.S. to improve air quality by reducing power plant emissions of NOx and SO_2 that cross state lines and contribute to smog and soot pollution in downwind states. On September 7, 2016, EPA revised the CSAPR ozone season NOx program by finalizing an update to CSAPR for the 2008 ozone National Ambient Air Quality Standards, known as the CSAPR Update. The CSAPR Update ozone season NOx program was designed to largely replace the original CSAPR ozone season NOx program starting on May 1, 2017, and further reduce summertime NOx emissions from power plants in the eastern U.S.

year 2023, that the CSAPR Update was a full remedy for 20 states. In the *New York* case cited by commenter, the D.C. Circuit found this conclusion incorrect as a matter of law in light of its holding in *Wisconsin* because EPA analyzed a year beyond the next attainment date without sufficient justification. Tennessee's obligations were not at issue in the Close-Out rule. EPA notes that the aspects of the CSAPR Update affecting Tennessee were not challenged in the litigation over the rule and are not affected by the remand of the rule in *Wisconsin*.

EPA believes the projected increase in mobile source emissions from removal of Tennessee's I/M program does not affect EPA's prior finding in the CSAPR Update that the state of Tennessee has no further interstate transport obligations for the 2008 8-hour ozone NAAQS. In the section 110(l) analysis for today's action, EPA analyzed the impacts of removing the I/M program in the Middle Tennessee Area and Hamilton County from the subject final rule and found that the largest projected increase in mobile source emissions in these areas would result in a combined projected increase of 579 tons in 2022, or a 2 percent increase in total anthropogenic NOx emissions in these areas.[32] Therefore, the net change in total anthropogenic emissions across the entire state of Tennessee would be much less than the projected 2 percent increase in NOx emissions.

On October 30, 2020, in the NPRM for the Revised CSAPR Update, EPA released and accepted public comment on updated 2023 modeling that used a 2016 emissions platform

[32] In 2022, emissions of VOC are projected to increase by 740 tons, or a 1.7 percent increase in total anthropogenic VOC emissions. In the context of interstate ozone transport, EPA focuses on NOx as the key ozone precursor pollutant.

developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[33] In this modeling, EPA found that the highest contribution in 2023 from the entire state of Tennessee to any downwind receptor identified as having a nonattainment or maintenance problem for the 2008 ozone standard is projected to be 0.32 ppb. This amount of contribution is well below the 1 percent of the NAAQS threshold used in EPA's good neighbor framework for determining whether an upwind state contributes to a nonattainment or maintenance receptor under the 2008 ozone NAAQS (i.e., 0.75 ppb). The small amount of projected increase in NOx emissions in Tennessee as a result of this action, combined with the fact that the highest modeled contributions from this state are well below the 1 percent threshold, support the conclusion that the projected increase in mobile source emissions does not affect EPA's prior decision that Tennessee has no remaining interstate transport obligations under the 2008 ozone NAAQS.

Today's final action does not make any finding regarding Tennessee's interstate transport obligations for the 2015 8-hour ozone NAAQS. EPA has not yet taken final action on Tennessee's good neighbor SIP submission for the 2015 8-hour ozone NAAQS.

Comment B9: A commenter identifies a number of regulations that have been rolled back, removed, or are pending review and expresses concern that the non-interference analysis did not account for the status of these rules. One commenter states that air quality in the region has "shown deterioration and movement towards nonattainment of the various NAAQS" due to the rollbacks. Also, a commenter asserts that impacts from as far away as California or New

[33] *See* 85 FR 68964, 68981. The results of this modeling are included in a spreadsheet in the docket for this action. The underlying modeling files are available for public review in the docket for the Revised CSAPR Update (EPA-HQ-OAR-2020-0272).

York could impact air in Tennessee. A commenter also concludes that there are emissions increases attributable to the rollbacks and removals (listing 25 changes or potential changes in policy) and that they should be taken into account to accurately assess air quality prior to removal of the I/M programs from the SIP.

Response B9: EPA does not agree with the commenter's assertion that Tennessee should have or could have accounted for the policy changes or potential policy changes that the commenter listed. As described above, Tennessee used the latest available information when the SIP was developed with EPA's MOVES2014b model and associated technical and policy guidance,[34] and the SIP's new onroad mobile source inventory was based on the EPA's vehicle and fuel standard rulemakings that are relevant for criteria pollutants. Per EPA's Emissions Inventory Guidance, "[i]mpacts of proposed [federal] rules are rarely included" in EPA emissions projections "as the changes in emissions impacts can be very large between proposed and final rules." *See* Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations, May 2017, at 122.[35] The commenter did not provide any technical information or evaluation of technical information to substantiate their claims that policy changes and/or potential policy changes in combination with the removal of the I/M program from the Tennessee SIP would cause either the Middle Tennessee Area or Hamilton County to interfere

[34] *See* EPA's July 2014 "Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes" (hereinafter MOVES 2014 Guidance). This document is available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100K4EB.pdf.
[35] Available at https://www.epa.gov/sites/production/files/2017-07/documents/ei_guidance_may_2017_final_rev.pdf.

with maintenance of the NAAQS.

C. Responses to Comments Outside the Scope of This Rulemaking

EPA received numerous comments that are outside the scope of this rulemaking. Some comments related to vehicle technology and I/M program effectiveness; time and expense of the I/M program; consideration of other controls; compliments for program operations; and concern related to the jobs of I/M inspectors. To the extent that the comments related to these topics, EPA views these comments outside the scope of this rulemaking.

Comment C1: Many commenters opposed to the removal of the I/M program acknowledge improved vehicle standards, but believe that the I/M program is still needed as a check to ensure that citizens are maintaining their vehicles (including for safety inspections).

Response C1: To the extent commenters are concerned that removal of the I/M program will result in citizens neglecting to maintain their vehicles or affecting vehicle safety, those concerns are outside the scope of this rulemaking. States have primary responsibility for deciding how to attain and maintain the NAAQS. Tennessee has opted to remove the I/M program from its SIP. Under the CAA, the sole issue for EPA's consideration in this rulemaking is whether removing the I/M program from the SIP would be consistent with CAA provisions, including whether discontinuation is expected to interfere with attainment and maintenance of air quality standards or any applicable requirement of the CAA. EPA is approving removal of the I/M program from the SIP because removal is consistent with the requirements of the CAA. The option the commenter suggests to continue an I/M program to ensure vehicles are maintained may be considered and implemented at the local level without EPA's review or approval.

EPA agrees that vehicles are cleaner now as a result of EPA rules since the early 2000s that control emissions from onroad vehicles. EPA refers commenters to Response A4 for more information concerning EPA standards.

Comment C2: A commenter opines that the I/M program is needed and notes "the testing procedures and equipment need updated badly." The commenter goes on to state that "A vehicle should not fail emissions for a certain code that has nothing to do with emissions output. All vehicles should be tested by their exhaust to see exactly what the air to fuel ratio is. The software needs updates as well. Very old equipment." Other commenters expressed concerns about whether the testing procedures themselves met the intended purpose of the I/M program. Some commenters questioned why the I/M program was only required in six counties in Tennessee and wanted the program removed for those counties, while others wanted the program expanded statewide and even nationwide. Other commenters expressed concerns about I/M program avoidance. They noted that citizens register their vehicles in surrounding counties that do not have I/M requirements, yet commute back and forth or even live in areas where I/M is required. Some of the commenters expressed concern about program avoidance as support for the removal of the I/M program. Commenters opined on whether or not the cost of the program and related expenses were worth keeping the program. Some commenters expressed concern related to the impact of the test and repair costs on the elderly and low-income citizens. Others asserted that this was a way to generate revenue and an unfair tax. Those who did not support removal of the I/M program opined that the I/M program was worth the benefit for air quality. Another commenter expressed concerns with regard to "replacements" to the I/M program. The

commenter also stated that the Area "must be able to maintain the progress that has been made." One commenter opined that there is a "likelihood that current income limitations will impact future replacement of aging vehicles." Another commenter said that "[t]he emissions program is doing more good than harm for the community." Some adverse comments indicated that removal of I/M could lead to people not feeling the need to maintain their cars, which will lead to even bigger problems.

Response C2: These comments are all outside the scope of this rulemaking. The design, technology, and implementation issues associated with an I/M program are outside this scope of this rulemaking. With regard to the geographical coverage area of Tennessee's I/M program, EPA notes that the I/M program is not currently mandated by the CAA or EPA regulations in any part of Tennessee or throughout the entirety of the United States.[36] Additionally, the cost structure of individual I/M programs is not a factor EPA evaluates when determining approvability of a SIP revision to remove I/M requirements. A commenter's assertion that the SIP revision is a "repeal and replace" is not clear. Tennessee's February 2020 SIP revisions only addressed removal of the I/M program, without a replacement program or offsets.

See Responses A5 and A10 regarding the scope of EPA's review and the discretionary nature of Tennessee's program, and Section III of this notice regarding EPA's determination that section 110(l) requirements have been met.

[36] Except as required by CAA sections 182(a)(2)(B), 182(b)(4), and 182(c)(3) for certain ozone nonattainment areas and sections 187(a)(4) and 187(a)(6) for certain CO nonattainment areas.

Comment C3: Commenters suggest that EPA needs to monitor emissions released from mobile sources outside of I/M programs, such as planes, trains, trucks, and buses in order to either improve air quality or prevent it from deteriorating.

Response C3: These comments are outside the scope of this rulemaking removing the I/M program from Tennessee's SIP. As discussed in Response C5, CAA section 110(k) requires EPA to approve SIP revisions that meet all applicable CAA requirements. While monitoring and regulating emissions from planes, trains, trucks, buses and any other "mobile source" that are not passenger vehicles is out of scope of today's action, EPA notes that the Agency's Office of Transportation and Air Quality (OTAQ) addresses emissions from the range of mobile sources. The commenters are encouraged to visit OTAQ's website for more information at https://www.epa.gov/aboutepa/about-office-air-and-radiation-oar#otaq to learn more about these programs.

Comment C4: A commenter opines that removing the I/M program is a bad idea and recalls polluting cars and trucks before the I/M program was enacted. The commenter goes on to say "My only issue in Chattanooga is the mayor has put in bike lanes everywhere that are used very seldomly and reducing the auto lanes creates huge traffic backups." The commenter goes on to say that bike lanes cause more pollution and offsets what emissions benefits are achieved.

Response C4: For reasons explained in Section III of this notice, EPA has determined that section 110(l) requirements have been met.

EPA also notes that cars and trucks are cleaner, absent the I/M program, because of federal engine and fuel standards that all vehicles must comply with. Thus, vehicles today are

much cleaner than they were when the I/M program was enacted in Hamilton County in the early 2000s, as vehicle and fuel standards have become more stringent since then. To the extent that the commenter expresses concerns about bike lanes and their impact on traffic and emissions, these comments are outside the scope of this rulemaking as I/M programs do not regulate bike lanes.

Comment C5: A commenter in support of the emissions testing in Hamilton County states that "[i]t not only has helped clean up the air in the county, it has also drawn other large businesses to our Area. Volkswagen and Amazon both came here due in part to Hamilton County's emission testing." Another commenter expresses concern for their industry and stated: "If Chattanooga and Nashville Ozone Standards are changed in the future and the EPA is no longer able to effectively regulate 'on road' mobile source emissions, stationary sources and our member's off-road fleets could, and likely would, be over regulated due the inability to regulate the much more impactful onroad mobile sources. This could create a severe adverse impact to our industry."

Response C5: These comments are outside the scope of this rulemaking. In evaluating whether a SIP revision is approvable, EPA must consider the relevant CAA provisions and does not consider what impacts, if any, the SIP revision would have for attracting businesses to an area. Nor does EPA try to anticipate what the State may do for future air quality planning. As detailed in Section III of this notice, EPA has determined that approval of these SIP revisions will not interfere with attainment or maintenance of the NAAQS or any other requirement of the CAA.

Comment C6: One commenter asserted that during Tennessee's state comment period it did not have access to inventory materials in timeframes necessary to conduct an independent review and modeling of the I/M program removal.

Response C6: This comment is outside the scope of this rulemaking because it relates to Tennessee's state comment period. In addition, EPA notes that the inventories were available to the public during EPA's public comment period on the June 2020 NPRMs. *See* regulations.gov document numbers EPA-R04-OAR-2019-0618-0002 (pdf pages 16 and 21) and EPA-R04-OAR-2019-0619-0002 (pdf pages 16, 17 and 22).

V. Incorporation by Reference

In this document, EPA is finalizing regulatory text that includes incorporation by reference. As described in the proposed amendments to 40 CFR part 52 set forth below, EPA is taking final action to remove Chapter 1200-3-29 – "Light Duty Vehicle Inspection and Maintenance;" and Regulation No. 8 – "Regulation of Emissions from Light-Duty Motor Vehicles through Mandatory Vehicle Inspection and Maintenance Program," from the Tennessee SIP, which is incorporated by reference in accordance with the requirements of 1 CFR part 51. EPA has made and will continue to make the SIP generally available through www.regulations.gov and at the EPA Region 4 Office (please contact the person identified in the "For Further Information Contact" section of this preamble for more information).

VI. Final Action

EPA is approving the SIP revisions and removing the I/M requirements for the Middle Tennessee Area (i.e., Davidson, Sumner, Rutherford, Williamson and Wilson Counties) and

Hamilton County from the Tennessee SIP. EPA is taking these actions because removing the requirements is consistent with the CAA and applicable regulations.

VII. Statutory and Executive Order Reviews

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

- Are not significant regulatory actions subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Are not Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory actions because SIP approvals are exempted under Executive Order 12866;
- Do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Are certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.);
- Do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);

- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Are not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Do not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The

EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the *Federal Register*. A major rule cannot take effect until 60 days after it is published in the *Federal Register*. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [Insert date 60 days after date of publication of this document in the FEDERAL REGISTER]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review, nor does 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. This action may not be challenged later in proceedings to enforce its requirements. *See* section 307(b)(2).

List of Subjects in 40 CFR Part 52

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

Dated: 1/19/2021.

Mary Walker,

Regional Administrator,

Region 4.

This document is a prepublication version, signed by Mary Walker on 1/19/2021. The EPA is submitting it for publication in the *Federal Register*. We have taken steps to ensure the accuracy of this version, but it is not the official version. Notwithstanding the fact that the EPA is posting a pre-publication version, the final rule will not be promulgated until published in the *Federal Register*.

For the reasons stated in the preamble, EPA amends 40 CFR part 52 as follows:

PART 52 – APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

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

Subpart RR - Tennessee

2. In Section 52.2220(c), amend:

a. Table 1 by removing "Chapter 1200-3-29 - Light Duty Vehicle Inspection and Maintenance" in its entirety; and

b. Table 5, under the heading "Article II. Standards for Operation" by removing "Regulation No. 8 - Regulation of Emissions from Light-Duty Motor Vehicles through Mandatory Vehicle Inspection and Maintenance Program."

3. Section 52.2220(e) is amended by revising the entry for "Chattanooga, Nashville, and Tri-Cities Early Action Compact Areas".

The revision reads as follow:

§52.2220 Identification of plan.

* * * * *

(e) * * *

EPA-APPROVED TENNESSEE NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	**Applicable geographic or nonattainment area**	**State submittal date/effective date**	**EPA approval date**	**Explanation**
**	**	*	*	*

Chattanooga, Nashville, and Tri-Cities Early Action Compact Areas	Chattanooga, Nashville, and Tri-Cities Early Action Compact Areas	12/31/04	[Insert date of publication in the FEDERAL REGISTER]	With the exception of Tennessee Regulation Chapter 1200-3-29 and Nashville-Davidson County Regulation No. 8, with a state effective date of 2/26/2020.
**	**	*	*	*