

(1) EPA-APPROVED NORTH CAROLINA REGULATIONS—Continued

State citation	Title/subject	State effective date	EPA approval date	Explanation
*	*	*	*	*
<b>Section .0600 Monitoring: Recordkeeping: Reporting</b>				
Section .0606 .....	Sources Covered By Appendix P of 40 CFR Part 51.	6/1/2008	12/19/2018, [Insert citation of publication].	
Section .0608 .....	Other Large Coal or Residual Oil Burners.	6/1/2008	12/19/2018, [Insert citation of publication].	
*	*	*	*	*
<b>Section .1400 Nitrogen Oxides</b>				
Section .1404 .....	Recordkeeping: Reporting: Monitoring.	1/1/2009	12/19/2018, [Insert citation of publication].	
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**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

[EPA-R09-OAR-2017-0177; FRL-9987-97-Region 9]

**Approval and Promulgation of Air Quality State Implementation Plans; California; Interstate Transport Requirements for Ozone, Fine Particulate Matter, and Sulfur Dioxide**

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

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is finalizing approval of a State Implementation Plan (SIP) submission from the State of California regarding certain interstate transport requirements of the Clean Air Act (CAA or “Act”). This submission addresses the 2008 ozone national ambient air quality standards (NAAQS), the 2006 fine particulate matter (PM<sub>2.5</sub>) and 2012 PM<sub>2.5</sub> NAAQS, and the 2010 sulfur dioxide (SO<sub>2</sub>) NAAQS. The interstate transport requirements under the CAA consist of several elements; this final rule pertains only to significant contribution to nonattainment and interference with maintenance of the NAAQS in other states.

**DATES:** This final rule is effective on January 18, 2019.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-R09-OAR-2017-0177. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) 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 are available through <https://www.regulations.gov>, or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional availability information.

**FOR FURTHER INFORMATION CONTACT:** Rory Mays, Air Planning Office (AIR-2), EPA Region IX, (415) 972-3227, [mays.rory@epa.gov](mailto:mays.rory@epa.gov).

**SUPPLEMENTARY INFORMATION:**

- Throughout this document, “we”, “us” and “our” refer to the EPA.
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**I. Proposed Action**

The California Air Resources Board (CARB) submitted the “California Infrastructure State Implementation Plan (SIP) Revision, Clean Air Act

Section 110(a)(2)(D)” on January 19, 2016 (“California Transport Plan” or “Plan”).<sup>1</sup> This Plan addresses interstate transport for the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS.<sup>2</sup> On February 7, 2018, the EPA proposed to approve the California Transport Plan into the California SIP because we determined that it complies with the relevant CAA requirements.<sup>3</sup> Our proposed action contains more information on the California Transport Plan and our evaluation. We summarize the key points of our proposed rulemaking and evaluation in this final rule.

Sections 110(a)(2)(D)(i)(I)–(II) of the CAA require SIPs to include provisions prohibiting any source or other type of emissions activity in one state from emitting any air pollutant in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of the NAAQS, or interfere with measures required to prevent significant deterioration of air quality or to protect visibility in any other state. This final rule addresses the

<sup>1</sup> Letter dated January 19, 2016, from Richard W. Corey, Executive Officer, CARB to Jared Blumenfeld, Regional Administrator, Region 9, EPA.

<sup>2</sup> The 2008 ozone NAAQS include primary and secondary 8-hour ozone NAAQS of 0.075 parts per million (ppm), 73 FR 16436 (March 27, 2008). The 2006 PM<sub>2.5</sub> NAAQS include primary and secondary 24-hour NAAQS for PM<sub>2.5</sub> of 35 micrograms per cubic meter (µg/m<sup>3</sup>), 71 FR 61144 (October 17, 2006). The 2012 PM<sub>2.5</sub> NAAQS include a primary annual PM<sub>2.5</sub> NAAQS of 12.0 µg/m<sup>3</sup>, 78 FR 3086 (January 15, 2013). The 2010 SO<sub>2</sub> NAAQS include a primary 1-hour SO<sub>2</sub> NAAQS of 75 parts per billion (ppb), 75 FR 35520 (June 22, 2010).

<sup>3</sup> 83 FR 5375.

two requirements under section 110(a)(2)(D)(i)(I), which we refer to as prong 1 (significant contribution to nonattainment of the NAAQS in any other state) and prong 2 (interference with maintenance of the NAAQS in any other state).<sup>4</sup> The EPA refers to SIP revisions addressing the requirements of section 110(a)(2)(D)(i)(I) as “good neighbor SIPs” or “interstate transport SIPs.”

In addition to our evaluation of the California Transport Plan with respect to transport of air pollution to other states, we considered transport to the Morongo Band of Mission Indians (“Morongo”) and the Pechanga Band of Luiseño Indians (“Pechanga”), given their regulatory monitoring for certain pollutants and comments during the EPA’s rulemaking on California’s interstate transport SIP for the 1997 ozone and 1997 PM<sub>2.5</sub> NAAQS. Based on our review of the ambient air quality data of Morongo and Pechanga and the emission control regimes of the South Coast Air Quality Management District (AQMD) for stationary sources and of CARB for mobile sources, as described in the EPA’s memo to the docket,<sup>5</sup> the EPA proposed to find that California adequately prohibits the emission of air pollutants in amounts that will significantly contribute to nonattainment, or interfere with maintenance, of the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS in the Morongo and Pechanga reservations. The EPA offered consultation with each tribe at the time of the proposal; neither tribe requested such consultation.<sup>6</sup>

<sup>4</sup> The remaining interstate and international transport requirements of CAA section 110(a)(2)(D) for the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS for California have been addressed in prior State submissions and EPA rulemakings. 81 FR 18766 (April 1, 2016). Specifically, this includes the section 110(a)(2)(D)(i)(II) requirements relating to interference with measures required to be included in the applicable implementation plan for any other state under part C to prevent significant deterioration of air quality (prong 3) or to protect visibility (prong 4), and the section 110(a)(2)(D)(ii) requirements relating to interstate and international pollution abatement.

<sup>5</sup> Memorandum of January 2018 from Rory Mays, Air Planning Office, Air Division, Region IX, EPA, “Interstate Transport for the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS and the Morongo Band of Mission Indians and the Pechanga Band of Luiseño Indians.”

<sup>6</sup> See, e.g., email dated February 27, 2018 from Kelcey Stricker, Environmental Director, Pechanga Band of Luiseño Mission Indians to Rory Mays, Air Planning Office, U.S. EPA Region IX, indicating that Pechanga did not see the need to consult. The EPA did not receive a request for consultation or a comparable email from the Morongo Band of Mission Indians.

#### A. Evaluation for the 2008 Ozone NAAQS

In our proposed rulemaking the EPA agreed with the conclusion of the California Transport Plan that California meets the CAA requirements for interstate transport prongs 1 and 2 for the 2008 ozone NAAQS. However, our rationale differed from that presented by CARB. The analysis in the California Transport Plan relies primarily on CARB’s conclusion that the ozone transport linkages are uncertain and therefore no significant contribution or interference with maintenance has been demonstrated. The EPA’s evaluation finds that the transport linkages are adequately quantified (and uncertainties sufficiently addressed) and that California’s emission control programs adequately address the transport requirements.

The EPA presented the various elements of our evaluation that led to this conclusion.<sup>7</sup> The EPA first explained that it approached its evaluation considering the four-step framework for evaluating regional ozone transport that has been developed through several prior regional EPA rulemakings. This framework evaluates downwind air quality (step 1), upwind state linkages (step 2), and various cost and air quality factors (step 3) to identify whether a state will significantly contribute to nonattainment or interfere with maintenance of the NAAQS in another state and to implement any necessary emission reductions (step 4). We discussed the EPA’s modeling for the Cross-State Air Pollution Rule (CSAPR) Update rule (“CSAPR Update”),<sup>8</sup> which identified regulatory monitors throughout the continental U.S. that were expected to exceed the NAAQS in 2017 based on both projected average design values and monitored data as “nonattainment receptors” (*i.e.*, not expected to attain) and those that may have difficulty maintaining the NAAQS, taking into account historic variability in air quality, as “maintenance receptors,” and estimated the contribution of other states to the ozone levels at each of these receptors. The analytic year of 2017 was selected since it corresponds to the attainment year prior to the mid-2018 attainment deadline for 2008 ozone NAAQS

<sup>7</sup> For discussion of our general evaluation approach and our specific evaluation with respect to the 2008 ozone NAAQS, please see sections II.A and II.B of our proposed rulemaking preamble. 83 FR 5375 (February 7, 2018).

<sup>8</sup> 81 FR 74504 (October 26, 2016).

nonattainment areas classified as Moderate.

We addressed CARB’s assertions regarding ozone transport modeling uncertainties (relating to a prior, similar iteration of the EPA’s ozone transport modeling) for identifying nonattainment and maintenance receptors in 2017 and linkages from California to downwind receptors, and discussed the contrast that CARB draws between ozone transport in the eastern versus western U.S.

Based on our analysis, we proposed to find that California is linked to three maintenance receptors in the Denver, Colorado area. This conclusion was based on a combination of factors: (1) The EPA’s projection that California emissions would contribute above 1 percent of the 2008 ozone NAAQS at each of the three receptors (1.1 to 2.6 percent), (2) other states also contribute above 1 percent of the NAAQS to these receptors, and (3) the average interstate contribution to ozone concentrations from all states upwind of these receptors was both considerable (9.2 to 9.4 percent of the projected ozone design values) and comparable to collective contributions from upwind states to receptors in Texas as evaluated in the CSAPR Update. Accordingly, we proposed that a 1 percent threshold is appropriate as an air quality threshold to determine whether California is “linked” to the three maintenance receptors in the Denver area for the 2008 ozone NAAQS.

Our proposed finding that California is linked to the three Denver area receptors prompted further inquiry into whether the contributions would interfere with maintenance at the receptors and whether there are cost-effective controls that can be employed to reduce emissions. To do so, we presented a general assessment of the emission sources in California, including mobile and stationary emission sources. We proposed to find that control measures in the California SIP for mobile sources, large electricity generating units (EGUs), and large non-EGU sources (*e.g.*, cement plants and oil refineries), adequately prohibit the emission of air pollution in amounts that will interfere with maintenance of the 2008 ozone NAAQS at the identified receptors in the Denver area.

We discussed California’s mobile source measures, which are primarily adopted and implemented by CARB, and stationary source measures, which are primarily adopted and implemented by California’s 35 local air districts. For the latter, beyond the measures described in the California Transport Plan, we also considered stationary

source control measures for EGUs, consistent with the controls analysis for the CSAPR and CSAPR Update rulemakings,<sup>9</sup> and examples of stationary source control measures for the largest non-EGU sources in the State.

We noted that California mobile sources account for approximately 70 percent of the projected 2017 nitrogen oxide (NO<sub>x</sub>) emissions and that CARB has established a comprehensive program to control and reduce mobile source emissions within the state. The EPA has approved many of CARB's mobile source regulations as part of the California SIP, including regulations establishing standards and other requirements relating to emissions from cars, light- and medium-duty trucks, heavy-duty trucks, commercial harbor craft, mobile cargo handling equipment, marine engines and boats, and off-highway recreational vehicles. To support and enhance these emissions standards, we also noted that CARB has established specific gasoline and diesel fuel requirements, and the California Bureau of Automotive Repair has established a vehicle emissions and inspection (*i.e.*, "smog check") program.

With respect to stationary and area emission sources, we noted that the California SIP has hundreds of rules that limit the emissions of NO<sub>x</sub> and volatile organic compounds (VOCs) and that many of these rules were developed by local air districts to reduce ozone concentrations in response to the prior 1979 1-hour ozone and 1997 8-hour ozone NAAQS.

For EGUs producing greater than 25 megawatts of electricity, including non-fossil fuel EGUs, we described how California's statewide NO<sub>x</sub> emissions rate is very low (0.0097 pounds of NO<sub>x</sub> per million British thermal units in 2018) and ranks as the 47th lowest out of the 48 contiguous states and Washington, DC for which the EPA performed power sector modeling in the context of the CSAPR Update. We found that California produces electricity very efficiently in terms of NO<sub>x</sub> emissions and is therefore unlikely to have significant, further NO<sub>x</sub> reductions available from the EGU sector at reasonable cost.

In investigating the potential for further NO<sub>x</sub> emissions reductions from EGUs, we found that additional NO<sub>x</sub> reductions from EGUs in California would cost more than three times the amount that the EPA determined to be cost-effective to partially address ozone transport obligations in the eastern U.S.

<sup>9</sup> 76 FR 48208 (August 8, 2011) and 81 FR 74504 (October 26, 2016), respectively.

under the CSAPR Update (*i.e.*, reductions expected above \$5,000 per ton of NO<sub>x</sub> in California versus a cost-effective control level of \$1,400 per ton in the CSAPR Update rulemaking for 22 eastern states). Further, we noted that the largest collection of EGU facilities emitting over 100 tons per year (tpy) of NO<sub>x</sub>, per the 2011 National Emissions Inventory, are found in the San Joaquin Valley, Bay Area, and South Coast air districts and are subject to district rules that limit NO<sub>x</sub> emissions and have been approved into the California SIP.

For non-EGU stationary sources, we found that they emitted 6.7 times more NO<sub>x</sub> than EGUs in California in 2011. Of these sources, 19 emitted over 500 tpy of NO<sub>x</sub>, including Portland cement plants, petroleum refineries, and several other source types, and accounted for two thirds of the NO<sub>x</sub> emissions from California stationary sources that emitted over 100 tpy in 2011 and 5.2 percent of the total 2011 NO<sub>x</sub> inventory for California. These 19 sources are in the Bay Area, Kern County, Mojave Desert, San Joaquin Valley, and South Coast air districts and, overall, are subject to rules that limit NO<sub>x</sub> emissions and have been approved into the California SIP. For the small number of large non-EGU sources that are either subject to NO<sub>x</sub> control measures that have not been submitted for approval into the California SIP, or fall outside the geographic jurisdiction of the applicable district rules, we found that further emission controls would be unlikely to reduce any potential impact on downwind states' air quality because such sources comprise no more than 0.8 percent of the total NO<sub>x</sub> emitted in California in 2011.

In sum, on the strength of CARB and the local air districts' emission control programs, especially for mobile and stationary sources of NO<sub>x</sub>, we proposed that the California SIP adequately prohibits the emission of air pollutants in amounts that will significantly contribute to nonattainment, or interfere with maintenance, of the 2008 ozone NAAQS in any other state. The EPA also noted that recent modeling shows that by the 2023 ozone season the receptors identified in Denver are projected to be "clean," *i.e.*, both the average and maximum design values are projected to be below the level of the 2008 ozone NAAQS.<sup>10</sup>

<sup>10</sup> Memorandum dated October 27, 2017 from Stephen D. Page, Director, EPA Office of Air Quality Planning and Standards, to Regional Air Division Directors, Regions 1–10. Available at: [https://www.epa.gov/sites/production/files/2017-10/documents/final\\_2008\\_o3\\_naaqs\\_transport\\_memo\\_10-27-17b.pdf](https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf).

### B. Evaluation for the 2006 PM<sub>2.5</sub> and 2012 PM<sub>2.5</sub> NAAQS

The EPA proposed to approve the California Transport Plan for the CAA requirements for interstate transport prongs 1 and 2 for the 2006 PM<sub>2.5</sub> and 2012 PM<sub>2.5</sub> NAAQS. First, we discussed our evaluation of CARB's identification of nonattainment and maintenance receptors in western states based on data presented in the California Transport Plan as well as the EPA's analysis of 2009–2013 24-hour and annual PM<sub>2.5</sub> design values. Based on that evaluation, we presented modified lists of such receptors that largely follow the lists of receptors in the California Transport Plan.

For the 2006 24-hour PM<sub>2.5</sub> NAAQS, we derived a list of 18 potential nonattainment receptors and three potential maintenance receptors within 11 western states (excluding California)<sup>11</sup> that accounted for the information presented in the California Transport Plan and ambient air quality and emissions data that were common to our evaluation of both the 24-hour and annual NAAQS. We also presented the 24-hour PM<sub>2.5</sub> design values for 2014–2016 at each identified receptor.

For the 2012 annual PM<sub>2.5</sub> NAAQS, we did not find that there would be any potential nonattainment receptors and we identified two potential maintenance receptors, one in Idaho and one in Pennsylvania. To do so, we relied on photochemical modeling results presented in the EPA's informational memo on interstate transport for the 2012 PM<sub>2.5</sub> NAAQS ("2012 PM<sub>2.5</sub> NAAQS Transport Memo"), which projected annual PM<sub>2.5</sub> design values for 2017 and 2025 at each regulatory PM<sub>2.5</sub> monitor in the continental U.S.<sup>12</sup> We used those results to evaluate projected air quality in 2021, which corresponds to the attainment deadline for 2012 PM<sub>2.5</sub> NAAQS nonattainment areas classified as Moderate. We also addressed some differences in the receptors identified by CARB and those identified by the EPA and considered the annual PM<sub>2.5</sub> design values for 2014–2016 at the potential maintenance receptors identified in the EPA's 2012 PM<sub>2.5</sub> NAAQS Transport Memo.

We then discussed California emissions of PM<sub>2.5</sub> and its precursors, California's regulations to limit such emissions, and the emissions trends

<sup>11</sup> For purposes of this rulemaking, "western states" refers to the states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

<sup>12</sup> 2012 PM<sub>2.5</sub> NAAQS Transport Memo, Table 1, 5. Available at <https://www.epa.gov/pm-pollution/information-interstate-transport-good-neighbor-provision-2012-fine-particulate-matter>.

resulting from such regulations. We discussed California's control measures before our more specific discussion of interstate transport prongs 1 and 2 for each NAAQS because such discussion provided a common basis for evaluating the California emissions component of CARB's weight of evidence analysis. For three PM<sub>2.5</sub> precursors pollutants, we incorporated our evaluation of California's emissions and regulatory programs for NO<sub>x</sub> and VOC (for the 2008 ozone NAAQS) and oxides of sulfur (SO<sub>x</sub>) (for the 2010 SO<sub>2</sub> NAAQS).<sup>13</sup> For directly-emitted PM<sub>2.5</sub>, we affirmed that many of California's measures limit the emission of particulate matter and have been approved into the California SIP. These include the State's mobile source emission standards and test procedures for heavy-duty engines and vehicles, passenger cars, light duty trucks, and medium duty vehicles; in-use diesel standards for heavy-duty trucks, buses, drayage trucks, and off-road vehicles; and inspection and maintenance programs, as well as air district stationary source measures for combustion sources of PM<sub>2.5</sub>, such as open burning, refineries, and cement plants, and dust sources of PM<sub>2.5</sub>, such as fugitive dust from roads and agricultural operations.

We also described trends in California emissions, which have decreased by substantial amounts (e.g., statewide decreases from 2000 to 2016 of 75 percent direct PM<sub>2.5</sub>, 66 percent NO<sub>x</sub>, 54 percent VOC, and 75 percent SO<sub>2</sub>) in response to state and local control measures, as well as federal measures for sources outside California's regulatory authority.

Based on our review of the state and local measures cited in the California Transport Plan that limit the emission of PM<sub>2.5</sub> and its precursor pollutants and of the applicable California emission trends, which are generally decreasing, we agreed with CARB's general conclusions regarding interstate transport of PM<sub>2.5</sub>. That California emissions from stationary sources are subject to stringent limits for direct PM<sub>2.5</sub> and its precursors (e.g., NO<sub>x</sub> and SO<sub>x</sub>); that California has a long history of reducing emissions through motor vehicle and fuel standards; and that state and local measures will continue to reduce the potential for California emissions to contribute significantly to nonattainment, or interfere with maintenance, of the 2006 24-hour PM<sub>2.5</sub>

<sup>13</sup> CARB estimates that SO<sub>2</sub> comprises 97% of the state-wide SO<sub>x</sub> inventory and therefore used California SO<sub>x</sub> emissions in its analysis to represent California SO<sub>2</sub> emissions. California Transport Plan, App. C, C-1.

or 2012 annual PM<sub>2.5</sub> NAAQS in any other state.

Building on the identification of potential nonattainment and maintenance receptors and our discussion of California emissions, we presented the EPA's weight of evidence analysis to address the CAA requirements, which affirmed CARB's weight of evidence analysis for the 2006 24-hour PM<sub>2.5</sub> and 2012 annual PM<sub>2.5</sub> NAAQS. We prepared a Technical Support Document (TSD) containing our more detailed analysis of interstate transport for the 2006 24-hour PM<sub>2.5</sub> NAAQS ("EPA's PM<sub>2.5</sub> Transport TSD"), which was also relevant for our evaluation of the 2012 annual PM<sub>2.5</sub> NAAQS.<sup>14</sup>

For interstate transport prongs 1 and 2 for the 2006 24-hour PM<sub>2.5</sub> NAAQS, we summarized our evaluation of the areas encompassing the 18 nonattainment receptors, grouping them into three geographic bins (*i.e.*, Arizona, the Northern Rocky Mountains, and Utah) based on the nature of the emission sources affecting the receptors, and the areas encompassing the three maintenance receptors, grouping them by the two relevant states (Montana and Utah).

For each receptor area we described our review of the information compiled and presented in the California Transport Plan, including distance of relevant receptors from California; intervening terrain; potential wildfire effects; chemical speciation data; local topography; the effect of local emission sources, particularly residential wood burning and, in certain cases, other sources (e.g., mobile sources, agricultural activities), on wintertime exceedances; and regional background levels represented by ambient 24-hour PM<sub>2.5</sub> data from Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring sites. We reviewed California's emissions and emission control programs for PM<sub>2.5</sub> and its precursors, especially for NO<sub>x</sub> and SO<sub>x</sub>, and concluded that California has an extensive and effective program for limiting emissions of such pollutants. Thus, we proposed that California will not significantly contribute to nonattainment or interfere with maintenance of the 2006 24-hour PM<sub>2.5</sub> NAAQS in any western state.

As the California Transport Plan did not evaluate PM<sub>2.5</sub> transport to states farther east than Montana, Wyoming, Colorado, and New Mexico, we evaluated the potential for transport of

PM<sub>2.5</sub> and its precursors to states farther east. We did so by reviewing modeling data from the CSAPR and recent air quality data to identify the westernmost area in the East<sup>15</sup> with potential nonattainment or maintenance receptors, and then comparing California's likely contributions with the contributions of intervening states that may significantly contribute to nonattainment or interfere with maintenance of the NAAQS at the potential nonattainment and maintenance receptors, respectively.

We concluded that California emission sources will not significantly contribute to nonattainment or interfere with maintenance of the 2006 PM<sub>2.5</sub> NAAQS at the westernmost nonattainment and maintenance receptors in the East, which were in Madison County, Illinois. This was based on the generally improved air quality in the East since the EPA's analysis in 2011 for CSAPR, which reduced the number of potential nonattainment or maintenance receptors; the distance of the Madison County, Illinois receptors from California; intervening terrain; our analysis of the westernmost states linked to the Madison receptors and comparison of California emissions; the large reductions in emissions of PM<sub>2.5</sub> and its precursors in California; and the trend of decreasing 24-hour PM<sub>2.5</sub> concentrations at the Madison receptors. As the distance from California to the other potential eastern nonattainment or maintenance receptors is even greater, we noted that the expected contribution from California to 24-hour PM<sub>2.5</sub> concentrations at such receptors would be even smaller and thus not significantly contribute to nonattainment or interfere with maintenance of the 2006 24-hour PM<sub>2.5</sub> NAAQS in any state farther east than Montana, Wyoming, Colorado, and New Mexico.

For interstate transport prongs 1 and 2 for the 2012 annual PM<sub>2.5</sub> NAAQS, we agreed with CARB that California will not significantly contribute to nonattainment, or interfere with maintenance, of the 2012 annual PM<sub>2.5</sub> NAAQS in any other state and presented our analysis for potential maintenance receptors in Lemhi and Shoshone counties, Idaho and Allegheny County, Pennsylvania.

<sup>15</sup> For purposes of the PM<sub>2.5</sub> evaluation in this notice, "the East" refers to the 37 states and Washington, DC that lie east of the states of Montana, Wyoming, Colorado, and New Mexico. The EPA modeled the contribution of states within the East to each receptor for CSAPR but did not model the contribution of any state further west, such as California.

<sup>14</sup> "EPA Evaluation of the California Interstate Transport Plan (2006 PM<sub>2.5</sub> NAAQS), Technical Support Document," EPA, Region IX, January 2018.

For the potential maintenance receptors in Idaho, we reviewed the information compiled and presented in the California Transport Plan, including distance of these monitors from California; intervening terrain; wildfire effects; local topography; the effect of local emission sources on wintertime exceedances of the 24-hour NAAQS and the effect of those exceedances on annual PM<sub>2.5</sub> concentrations; and rural background levels represented by IMPROVE data. We reviewed California's emissions and emission control programs for PM<sub>2.5</sub> and its precursors, especially for NO<sub>x</sub> and SO<sub>x</sub>, and concluded that California has an extensive and effective program for limiting emissions of such pollutants. Thus, we proposed that California will not significantly contribute to nonattainment or interfere with maintenance of the 2012 annual PM<sub>2.5</sub> NAAQS in Idaho or any western state.

For the potential maintenance receptor in Allegheny County, Pennsylvania, we concluded that California emission sources will not interfere with maintenance of the 2012 annual PM<sub>2.5</sub> NAAQS. This was based on our interpolated projection that the Allegheny monitor will likely be attaining the annual PM<sub>2.5</sub> NAAQS in 2021; the distance of this receptor from California; intervening terrain; the contribution modeling performed for CSAPR; the large reductions in emissions of PM<sub>2.5</sub> and its precursors in California; and the general trend of decreasing annual PM<sub>2.5</sub> concentrations at the Allegheny receptor.

Based on our analysis that there are no nonattainment receptors outside of California for the 2012 PM<sub>2.5</sub> NAAQS, and our analysis for the maintenance receptors in Idaho and Pennsylvania, we proposed that California will not significantly contribute to nonattainment, or interfere with maintenance, of the 2012 PM<sub>2.5</sub> NAAQS in any other state.

### C. Evaluation for the 2010 SO<sub>2</sub> NAAQS

The EPA proposed to approve the California Transport Plan for the CAA requirements for interstate transport prongs 1 and 2 for the 2010 SO<sub>2</sub> NAAQS. We described how our evaluation of SO<sub>2</sub> transport required a slightly different approach than our evaluation for regional pollutants, such as ozone and PM<sub>2.5</sub>, and more localized pollutants, like lead, given the universe of SO<sub>2</sub> emission sources and physical properties of SO<sub>2</sub> in the atmosphere relative to those other pollutants. In our evaluation we addressed the air quality, emission sources, and emission trends in the states bordering California, *i.e.*,

Arizona, Nevada, and Oregon. Then we discussed California's air quality, emissions sources, control measures, and emission trends with respect to interstate transport prong 1, followed by discussion of additional California air quality trends and emission trends with respect to interstate transport prong 2.

We found that monitored 1-hour SO<sub>2</sub> levels in Arizona, Nevada, and Oregon are generally well below 75 ppb; that sources in these bordering states that emit over 2,000 tpy of SO<sub>2</sub> are located at a distance well beyond a 50-km buffer from California's borders where emissions from California sources might be expected to have downwind impacts on air quality; and that the downward SO<sub>2</sub> emission trends in each bordering state reduce the likelihood of SO<sub>2</sub> nonattainment or maintenance issues appearing in the future.<sup>16</sup>

For interstate transport prong 1, the EPA reviewed the analysis presented in the California Transport Plan and considered additional information on ambient SO<sub>2</sub> monitoring data, SO<sub>2</sub> emission sources and controls, including state measures for mobile sources and air district measures for large stationary sources, and emission trends in California. As for Arizona, Nevada, and Oregon, monitored 1-hour SO<sub>2</sub> levels in California are low (most often below half the level of the 2010 SO<sub>2</sub> NAAQS); the 29 SO<sub>2</sub> sources in California that emit over 100 tpy of SO<sub>2</sub> are located at a distance well beyond 50 km from California's borders, the distance where emissions from California sources might be expected to have downwind impacts on air quality in bordering states; and California's decreasing SO<sub>2</sub> emission trend each reduce the likelihood of California emitting SO<sub>2</sub> in amounts that would adversely affect other states in the future.

Therefore, based on our analysis of SO<sub>2</sub> air quality and emission sources in Arizona, Nevada, and Oregon and our analysis of SO<sub>2</sub> air quality and emissions in California, we proposed

<sup>16</sup> This final approval of the California Transport Plan for the 2010 SO<sub>2</sub> NAAQS under CAA section 110(a)(2)(D)(i)(I) is based on the information contained in the administrative record for this action and does not prejudice any other future EPA action that may make other determinations regarding California's air quality status. Any such future actions, such as area designations under any NAAQS, will be based on their own administrative records and the EPA's analyses of information that becomes available at those times. Future available information may include, and is not limited to, monitoring data and modeling analyses conducted pursuant to the EPA's SO<sub>2</sub> Data Requirements Rule (80 FR 51052, August 21, 2015) and information submitted to the EPA by states, air agencies, and third-party stakeholders such as citizen groups and industry representatives.

that California will not significantly contribute to nonattainment of the 2010 SO<sub>2</sub> NAAQS in any other state, per the requirements of CAA section 110(a)(2)(D)(i)(I).

For interstate transport prong 2, the EPA reviewed the analysis presented in the California Transport Plan and considered additional information on California air quality trends and emission trends to evaluate CARB's conclusion that California does not interfere with maintenance of the 2010 SO<sub>2</sub> NAAQS in other states. The EPA's analysis built on our evaluation of air quality and SO<sub>2</sub> emission sources in Arizona, Nevada, and Oregon, and our evaluation for significant contribution to nonattainment (prong 1) based on the evidence that we reviewed (*i.e.*, low ambient concentrations of SO<sub>2</sub>, large distance of SO<sub>2</sub> sources from the California border, decreasing SO<sub>2</sub> emissions, and the existence of SIP-approved California control measures).

We found that from 2000 to 2015 both ambient SO<sub>2</sub> concentrations and SO<sub>2</sub> emissions from California's largest stationary sources have decreased substantially; and that state and local measures to limit the sulfur content of fuels and limit SO<sub>2</sub> emissions will continue to limit SO<sub>2</sub> emissions that might adversely affect other states. Accordingly, we proposed that California SO<sub>2</sub> emission sources will not interfere with maintenance of the 2010 SO<sub>2</sub> NAAQS in any other state, per the requirements of CAA section 110(a)(2)(D)(i)(I).

## II. Public Comments and EPA Responses

The 30-day comment period for the EPA's proposed rulemaking closed on March 9, 2018. We received four comment letters in response to the proposed rulemaking. CARB submitted a letter affirming its support for the EPA's proposed approval.<sup>17</sup> The Center for Biological Diversity (CBD) submitted adverse comments regarding the State's and the EPA's evaluation of interstate transport for the 2008 ozone NAAQS.<sup>18</sup> The two remaining letters were anonymous comment letters that raised issues outside the scope of this rulemaking and did not identify any material issues necessitating a

<sup>17</sup> Letter dated March 9, 2018, from Kurt Karperos, Deputy Executive Officer, CARB to Alexis Strauss, Acting Regional Administrator, EPA Region IX.

<sup>18</sup> Letter dated March 9, 2018, from Robert Ukeiley, Senior Attorney, Center for Biological Diversity to Rory Mays, Air Planning Office, EPA Region IX.

response.<sup>19</sup> The comment letters are available in the docket for this rulemaking.

CBD requests that the EPA disapprove the California Transport Plan with respect to the 2008 ozone NAAQS. We address CBD's comments in three parts as follows.

*Comment #1:* The commenter states that the ozone transport analysis in the California Transport Plan is flawed because it underestimates NO<sub>x</sub> emissions from agricultural soils in California. The commenter relies on a recent study that concludes that agricultural soils are a dominant source of California's NO<sub>x</sub> emissions ("Soil NO<sub>x</sub> Study"), especially in the San Joaquin Valley.<sup>20</sup> Based on this study, the commenter states that California's NO<sub>x</sub> emissions would have been 20 to 51 percent higher and that, by underestimating such emissions, the California Transport Plan underestimated California's contribution to downwind states. The commenter recommends re-running ozone transport modeling with a corrected NO<sub>x</sub> emission inventory for California and suggests that this could change the linkages between California and other states for ozone. The commenter asserts that, pursuant to the Supreme Court's holding in *Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance*, it is unlawful to fail to consider an important aspect of a problem before the agency.<sup>21</sup>

*Response #1:* The EPA disagrees that the California Transport Plan is flawed in this manner and that the EPA failed to consider an important aspect of interstate transport for the 2008 ozone NAAQS. As an initial matter, the CSAPR Update modeling estimates that California contributes more than 1 percent of the NAAQS to downwind maintenance receptors in Denver (*i.e.*, California is "linked" to receptors in Denver). An increase in NO<sub>x</sub> emissions from California could potentially increase the magnitude of the contribution to these receptors but would be unlikely to result in any additional downwind linkages for California because there are no other

nonattainment or maintenance receptors in the West (excluding California), based on EPA's CSAPR Update modeling. Moreover, in the CSAPR Update four-step process, the amount of contribution above the 1 percent threshold is not a factor in determining whether the upwind state's contribution is significant or will interfere with maintenance.<sup>22</sup>

Although the study upon which the commenter relies was not published until after the EPA's proposed rulemaking was signed on January 26, 2018, we have considered the commenter's statement and the study on possible underestimation of NO<sub>x</sub> emissions from agricultural soils in California and potential effects in analyzing California's contribution to ozone in downwind states. Accordingly, we present a brief synopsis of how the CSAPR Update modeling accounted for NO<sub>x</sub> emissions from land in California, as well as a summary of the Soil NO<sub>x</sub> Study referenced by the commenter and our evaluation thereof with respect to this rulemaking.

In 2016, the EPA's CSAPR Update modeling used NO<sub>x</sub> emissions from soils for the continental U.S based on application of the Biogenic Emissions Inventory System (BEIS version 3.61).<sup>23</sup> Emissions of soil NO<sub>x</sub> vary by land cover type and, accordingly, model emission factors vary for each type of land cover. For example, the emission factor for agricultural lands is relatively higher than grasslands due to application of nitrogen-based fertilizers. The annual soil NO<sub>x</sub> emissions from

<sup>22</sup> The 1 percent threshold can serve to limit the scope of an upwind state's emission reduction obligation if upwind emission reductions would otherwise reduce a state's impact to below the threshold. See *EME Homer City Generation, L.P. v. EPA*, 134 S. Ct. 1584, 1608–09 (2014) (the EPA cannot require a state to reduce its contribution to every receptor to which it is linked to below 1 percent of the NAAQS). In this action, however, the EPA has not concluded that California's impact to any downwind receptors would be reduced below the 1 percent threshold as a result of the emission controls implemented by the State's SIP. Therefore, the potential additional impact of NO<sub>x</sub> emissions resulting from agricultural soils would not implicate this limit on the Agency's statutory authority.

<sup>23</sup> Information on BEIS can be found at <https://www.epa.gov/air-emissions-modeling/biogenic-emission-inventory-system-beis>. This web page includes a brief version history of BEIS, including points at which the system's soil NO algorithm was revised based on the work of peer-reviewed research papers, and a list of BEIS references at [https://www.epa.gov/sites/production/files/2015-10/documents/beis\\_references.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/beis_references.pdf). The EPA's emissions modeling platform TSD for the CSAPR Update final rule describes how BEIS was used to estimate emissions from soils and vegetation. "Technical Support Document (TSD) Preparation of Emission Inventories for the Version 6.3, 2011 Emissions Modeling Platform," EPA, August 2016, 33–35.

California were estimated to be 30,593 tpy in both 2011 and 2017, which corresponds to 4.1 percent of the total 2011 NO<sub>x</sub> inventory for California (740,179 tpy) and 5.6 percent of the total 2017 base case NO<sub>x</sub> inventory (544,972 tpy), respectively. Thus, the CSAPR Update modeling accounted for the effect of California's soil NO<sub>x</sub> emissions on ozone formation and downwind transport to other states.

In the Soil NO<sub>x</sub> Study, the authors generated annual estimates of soil NO<sub>x</sub> emissions from California using a nitrogen isotope model and the Integrated Model for the Assessment of the Global Environment at a 4 kilometer (km) by 4 km resolution. These complex biogeochemical models include the full suite of variables thought to contribute to soil NO<sub>x</sub> emissions. The model results were compared to a limited number of observations from surface measurements around California. The average modeled NO<sub>x</sub> emissions were comparable to the surface measurements in some areas and larger than the surface measurements in other areas.<sup>24</sup>

The authors then compared model predicted emissions to CARB's non-soil NO<sub>x</sub> emissions inventory and estimated that soil NO<sub>x</sub> emissions account for 25 percent of California's total NO<sub>x</sub> emissions.<sup>25</sup> They note that this is in the range of previous modeling studies that considered agricultural soils worldwide. With respect to the San Joaquin Valley, the study also used airborne and surface measurements of NO<sub>x</sub> from a separate study<sup>26</sup> to estimate total NO<sub>x</sub> emissions from a portion of the San Joaquin Valley of 190 metric tons of nitrogen per day (tnpd), with a range of plus or minus 130 tnpd.

The Soil NO<sub>x</sub> Study concludes that it is the first study to include a spatially explicit estimate of soil NO<sub>x</sub> emissions compared to other emission sources in California. While acknowledging the uncertainty in the estimate, the Soil NO<sub>x</sub> Study further concludes that its model results add to a growing body of

<sup>24</sup> Soil NO<sub>x</sub> Study, Table 1, 3.

<sup>25</sup> The Soil NO<sub>x</sub> Study notes that CARB ascribes about 3.8 percent of California's total NO<sub>x</sub> emissions to cropland soils. Soil NO<sub>x</sub> Study, p. 1. The commenters did not attempt to further compare the model results of the Soil NO<sub>x</sub> Study with the emissions inventory used in the California Transport Plan (based on the initial CSAPR Update modeling) nor the CSAPR Update modeling, upon which the EPA's proposed rulemaking was based. Notwithstanding, the proportion of CARB's cropland NO<sub>x</sub> emissions estimates appear to fall in a similar scale to those modeled for the EPA's CSAPR Update rule.

<sup>26</sup> Trousdell, et al., "Observing entrainment mixing, photochemical ozone production, and regional methane emissions by aircraft using a simple mixed-layer framework," *Atmospheric Chemistry and Physics*, 16, 15433–15450 (2016).

<sup>19</sup> Comments received on February 21, 2018 and February 27, 2018.

<sup>20</sup> Almaraz, et al., "Agriculture is a major source of NO<sub>x</sub> pollution in California," *Science Advances*, January 31, 2018, 1. As this article is copyrighted, it is available in hard copy, but not available electronically at [Regulations.gov](https://www.regulations.gov), as part of the docket of this rulemaking; see the ADDRESSES section of this action for hard copy viewing information. It is also publicly available at: <http://advances.sciencemag.org/content/4/1/eaao3477/tab-pdf>.

<sup>21</sup> 463 U.S. 29, 43 (1983).

literature suggesting that soil NO<sub>x</sub> emissions could be significantly underestimated in current inventories and possibly increase California's total NO<sub>x</sub> emissions by 20 to 51 percent.<sup>27</sup>

The EPA acknowledges the value that studies of this kind contribute towards a better understanding of soil NO<sub>x</sub> emissions from California. However, the quantification of such emissions is currently uncertain, as described below, and would require further field research to substantiate. The commenters did not address the uncertainties expressed in the study and did not consider other important analytical aspects of interstate transport of ozone.

First, the study acknowledges that a limited number of surface measurements were available for purposes of comparing the model results and, where observations exist, there is a large range in observed values due to varying soil conditions (*e.g.*, relating to temperature, moisture, fertilizer application, etc.). The authors acknowledge the difficulty in comparing the model results to the observations and note the need for more field measurements.<sup>28</sup> Second, there was a significant degree of uncertainty in the aircraft estimates of NO<sub>x</sub> emissions over the San Joaquin Valley (190 tnpd plus or minus 130 tnpd, which equates to plus or minus 68 percent). Further research would be needed to determine whether these higher levels of soil NO<sub>x</sub> emissions over California and elsewhere are accurate and reliable before updates are included in air quality modeling to support regulatory decisions.<sup>29</sup>

Furthermore, in the EPA's proposed rulemaking, we described the rationale for our disagreement with CARB's assertions in the California Transport Plan that California's contributions to ozone levels in the Denver area were *overestimated*, while acknowledging that the future research that CARB suggests to better characterize ozone transport from California to other states could prove valuable.<sup>30</sup> In this response,

we disagree with the commenter that California's contributions to such ozone levels were *underestimated*, while similarly acknowledging the value of further research to better characterize California's NO<sub>x</sub> emissions. In both cases, however, we assert that the prospect of future research that might better quantify California's emissions or their effect on other states' ozone levels does not itself undermine the technical adequacy of the EPA's current modeling for the 2008 ozone NAAQS. We reaffirm that the CSAPR Update modeling, including its emissions inventory bases, and our analysis with respect to California based on that modeling adequately estimate the interstate transport of ozone from California to downwind states.

In sum, the soil NO<sub>x</sub> emissions used in the CSAPR Update modeling, upon which our evaluation of the California Transport Plan relies for the 2008 ozone NAAQS, were based on the BEIS, which incorporates prior research on soil NO<sub>x</sub> as noted above. While the Soil NO<sub>x</sub> Study suggests that California's soil NO<sub>x</sub> emissions may be underestimated, they have not been adequately quantified and verified to a sufficient degree to replace the emissions inventories that were part of the analytical basis of the EPA's proposal to approve California Transport Plan for the 2008 ozone NAAQS, nor to warrant re-running the ozone transport modeling. Furthermore, the CSAPR modeling and our proposed finding did indicate that California is linked to downwind receptors, and therefore we presented a general assessment of cost-effective controls that can be employed to reduce emissions from sources in California.

The EPA therefore disagrees that it has failed to consider an important aspect of the interstate transport problem in violation of the Supreme Court's holding in *State Farm*. We affirm that the EPA has considered the multiple important aspects of interstate transport of ozone from California to other states, as described in our proposed rulemaking and in this final rule's response to comments. These aspects include, but are not limited to, consideration of measured and modeled ambient ozone concentrations, measured and estimated NO<sub>x</sub> and VOC emissions inventories for California and the continental U.S., application of state of the science modeling tools for regional air pollution analysis and appropriate model validation, existing and planned emission control regimes, and meteorology. Furthermore, we have considered the commenter's arguments with respect to California's soil NO<sub>x</sub>

emissions and disagree that the science of such emissions is quantified and verified to a sufficient degree to warrant a new analysis of interstate transport from California to other states for the 2008 ozone NAAQS.

*Comment #2:* The commenter states that the ozone transport analysis in the California Transport Plan is flawed by failing to consider whether soil NO<sub>x</sub> emissions from California are adequately controlled. Specifically, the commenter states that the EPA failed to consider whether California has rules to limit NO<sub>x</sub> via agricultural management practices, whether such rules are in the California SIP, and whether such rules are adequate. The commenter does not believe that such rules are in place.

*Response #2:* We disagree with the commenter's assertion that the California Transport Plan should have examined whether soil NO<sub>x</sub> emissions are subject to control and whether such controls are adequate for purposes of the interstate transport requirements for the 2008 ozone NAAQS. This flows from our considerations expressed in Response #1 of this final rule. We do not consider the Soil NO<sub>x</sub> Study alone to be sufficient to compel replacement of the emissions inventories that were the analytical bases of the EPA's proposal, particularly given the study's wide range of suggested soil NO<sub>x</sub> emission increases (20 to 51 percent for California) and the large uncertainty in the model results.

Soil NO<sub>x</sub> emissions occur across California's wide range of ecological regions<sup>31</sup> and NO<sub>x</sub> emissions from agricultural regions in the State represent a subset of the statewide annual soil NO<sub>x</sub> estimate. Within the agricultural regions, the amount of soil NO<sub>x</sub> emitted varies based on agricultural practices employed (*e.g.*, irrigation; method, timing, and amount of fertilizer application; etc.), crop type, temperature, and other factors. Additionally, soil NO<sub>x</sub> is not directly emitted (*e.g.*, nitrifying bacteria in the soil convert ammonium from various sources into NO<sub>x</sub>, some of which is emitted into the atmosphere) and involves numerous natural emissions sources and processes. Therefore, the production of NO<sub>x</sub> in the soil is quite complex and inherently difficult to estimate and model.

In addition, the commenter did not provide examples or recommendations of alternative agricultural practices that might reduce soil NO<sub>x</sub> emissions in California. Even if there were known

<sup>27</sup> Id. at 1.

<sup>28</sup> Id. at 5.

<sup>29</sup> Technical comments have been published in response to the Soil NO<sub>x</sub> Study that present additional uncertainties (with respect to the calculations used) in the Soil NO<sub>x</sub> Study and recommend supplemental data that could be released to allow for an improved assessment of the study. Maaz, et al., "Inconsistencies undermine the conclusion that agriculture is a dominant source of NO<sub>x</sub> in California," *Science Advances*, September 12, 2018. As these technical comments are copyrighted, they are available in hard copy as part of the docket of this rulemaking; see the ADDRESSES section of this action for viewing information. They are also publicly available at: <http://advances.sciencemag.org/content/4/9/eaat4706?intcmp=trendmd-adv>.

<sup>30</sup> 83 FR 5375, 5380 (February 7, 2018).

<sup>31</sup> A map of California's ecological regions is available at: <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-9>.

alternative practices, it may prove difficult to estimate the effect of those potential controls given the complexity of soil NO<sub>x</sub> production. Given the complexity in estimating and modeling soil NO<sub>x</sub> emissions, the indirect and partially natural source of the emissions, the absence of specific alternative measures that could be implemented to reduce soil NO<sub>x</sub> emissions, and the uncertainty in the effectiveness of potential emission controls, the EPA concludes that there is not sufficient information available at this time to warrant an evaluation of potential control of soil NO<sub>x</sub> emissions in California for purposes of interstate transport prongs 1 and 2 for the 2008 ozone NAAQS.

Therefore, we reaffirm that our approach of evaluating California's largest sources of NO<sub>x</sub> emissions and the control measures for such sources, including mobile sources (70 percent of the projected 2017 emissions inventory) and stationary point sources (15 percent of the inventory, including EGUs and non-EGU sources), is a reasonable means for assessing whether California has satisfied the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to the 2008 ozone NAAQS.

*Comment #3:* Lastly, the commenter asserts that measures to control NO<sub>x</sub> emissions from cropland soils will bring economic, ecosystem, and human health co-benefits to rural California, per the recent study. On this basis, the commenter disagrees that the EPA lacks discretionary authority under Executive Order 12898 to address disproportionate human health or environmental effects and highlights the San Joaquin Valley as an area with many communities that suffer environmental injustice. The commenter states that the California Transport Plan should include measures to control NO<sub>x</sub> emissions from agricultural soils to reduce pollution in such communities, consistent with Executive Order 12898.

*Response #3:* We disagree that the EPA has discretionary authority in this rulemaking under Executive Order 12898 to address any disproportionate human health or environmental effects in rural California. First, Executive Order 12898 applies only to federal agency actions that invoke certain federal requirements, such as the National Environmental Policy Act or CAA section 309, and it does not apply where the EPA is merely approving a state submission as meeting basic requirements of the CAA. Second, this rulemaking concerns the interstate transport of ozone from California to other states under CAA section

110(a)(2)(D)(i)(I), rather than the effect of California's NO<sub>x</sub> emissions on communities *within* California. Thus, the commenters' suggestion that California should control NO<sub>x</sub> emissions from cropland soils to reduce pollution that may affect communities in California is outside the scope of this rulemaking. For these reasons, Executive Order 12898 is not applicable to this action.

### III. EPA Action

We have reviewed the California Transport Plan for the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS using step-wise processes. Based on this review and additional analyses conducted by the EPA to verify and supplement the California Transport Plan, and consistent with CAA section 110(a)(2)(D)(i)(I) and EPA guidance with respect to interstate transport for these NAAQS, we find that California will not significantly contribute to nonattainment, or interfere with maintenance, of the 2008 ozone, 2006 PM<sub>2.5</sub>, 2012 PM<sub>2.5</sub>, and 2010 SO<sub>2</sub> NAAQS in any other state. No comments were submitted that change our assessment of the California Transport Plan as described in our proposed rulemaking. Therefore, as authorized in section 110(k)(3) of the Act, the EPA is fully approving the California Transport Plan into the California SIP for the requirements of CAA section 110(a)(2)(D)(i)(I) for these NAAQS.

In addition, for the 2006 PM<sub>2.5</sub> and 2008 ozone NAAQS, the EPA had previously found that California failed to submit the required SIP revisions addressing interstate transport prongs 1 and 2 by certain dates.<sup>32</sup> Those actions triggered the obligation for the EPA to promulgate a federal implementation plan (FIP) for these requirements unless the State submitted and the EPA approved a SIP submission that addresses the two prongs. As the EPA is fully approving the California Transport Plan for these two NAAQS, this final rule also removes the obligation for the EPA to promulgate such FIPs.

### IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to

approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);

- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and

- Does 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).

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

<sup>32</sup> 79 FR 63536 (October 24, 2014) for the 2006 PM<sub>2.5</sub> NAAQS; and 80 FR 39961 (July 13, 2015) for the 2008 ozone NAAQS.

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 Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by February 19, 2019. 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, Ammonia, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

Dated: November 30, 2018.

**Deborah Jordan,**

*Acting Regional Administrator, Region IX.*

Part 52, Chapter I, Title 40 of the Code of Federal Regulations is amended 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 F—California**

■ 2. Section 52.220 is amended by adding paragraph (c)(512) to read as follows:

**§ 52.220 Identification of plan—in part.**

\* \* \* \* \*

(c) \* \* \*

(512) The following plan was submitted on January 19, 2016, by the Governor's Designee.

(i) [Reserved].

(ii) Additional materials.

(A) California Air Resources Board (CARB).

(1) "California Infrastructure State Implementation Plan (SIP) Revision, Clean Air Act Section 110(a)(2)(D)," adopted December 17, 2015, ("California Transport Plan").

■ 3. Section 52.283 is amended by adding paragraphs (c)(3), (d)(3), and (g)(3) to read as follows:

**§ 52.283 Interstate Transport.**

\* \* \* \* \*

(c) \* \* \*

(3) The requirements of CAA section 110(a)(2)(D)(i)(I) regarding significant contribution to nonattainment of the 2006 PM<sub>2.5</sub> NAAQS and 2012 PM<sub>2.5</sub> NAAQS in any other state and interference with maintenance of the 2006 PM<sub>2.5</sub> NAAQS and 2012 PM<sub>2.5</sub> NAAQS by any other state.

\* \* \* \* \*

(d) \* \* \*

(3) The requirements of CAA section 110(a)(2)(D)(i)(I) regarding significant contribution to nonattainment of the 2008 ozone NAAQS in any other State and interference with maintenance of the 2010 ozone NAAQS by any other State.

\* \* \* \* \*

(g) \* \* \*

(3) The requirements of CAA section 110(a)(2)(D)(i)(I) regarding significant contribution to nonattainment of the 2010 SO<sub>2</sub> NAAQS in any other State and interference with maintenance of the 2010 SO<sub>2</sub> NAAQS by any other State.

[FR Doc. 2018–27477 Filed 12–18–18; 8:45 am]

**BILLING CODE 6560–50–P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 271**

[EPA–R08–RCRA–2018–0554; FRL–9986–24–Region 8]

**North Dakota: Final Authorization of State Hazardous Waste Management Program Revisions**

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

**ACTION:** Direct final rule.

**SUMMARY:** North Dakota has applied for final authorization of a revision to its

hazardous waste program under the Resource Conservation and Recovery Act (RCRA). The revision has two parts, both of which relate directly to the creation of the North Dakota Department of Environmental Quality (NDDEQ) by the North Dakota Legislature, and the impending transfer of authority, power, and duties relating to environmental quality from the North Dakota Department of Health (NDDH) to the NDDEQ. The first part of the program revision is the complete transfer of all hazardous waste program rules from Title 33 Article 24 of the North Dakota Administrative Code (NDAC) to NDAC Title 33.1 Article 24. The second part is replacing all references to NDDH with NDDEQ. No other changes are being made to the hazardous waste program rules in this revision. The EPA has reviewed the application and determined that North Dakota's hazardous waste program revision satisfies all of the requirements necessary to qualify for final authorization. The EPA is authorizing the state program revision through this direct final rule. The EPA is publishing this rule without prior proposal because the Agency views this as a noncontroversial action and does not anticipate adverse comments. However, in the proposed rules section of this **Federal Register**, the EPA is publishing a separate document that will serve as a proposal to authorize the revision should the Agency receive adverse comment. Unless the EPA receives adverse written comments during the review and comment period, the decision to authorize North Dakota's hazardous waste program revision will take effect as provided below.

**DATES:** This final rule is effective on March 15, 2019, unless the EPA receives adverse written comment by January 18, 2019. Should the EPA receive such comments, it will publish a timely document either: Withdrawing the direct final publication or affirming the publication and responding to comments.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA–R08–RCRA–2018–0554. All documents in the docket are listed on the <http://www.regulations.gov> website. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information, the disclosure of which 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 are available either electronically through