



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R08-OAR-2018-0723; FRL-9988-63-Region 8]

### Approval and Promulgation of Air Quality Implementation Plans; Wyoming; Interstate Transport for the 2008 Ozone National Ambient Air Quality Standards

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing action on a submission from the State of Wyoming that is intended to demonstrate that the Wyoming State Implementation Plan (SIP) meets certain interstate transport requirements of the Clean Air Act (Act or CAA) for the 2008 ozone National Ambient Air Quality Standards (NAAQS). This submission addresses interstate transport “prong 2,” which requires each state’s SIP to prohibit emissions which will interfere with maintenance of the NAAQS in other states. The EPA is proposing to approve this submittal as meeting the requirement that Wyoming’s SIP contain adequate provisions to prohibit emissions in amounts which will interfere with maintenance of the 2008 ozone NAAQS in any other state.

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

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R08-OAR-2018-0723, to the Federal Rulemaking Portal: <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from [www.regulations.gov](https://www.regulations.gov). The EPA may publish any comment received to its public docket.

Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

*Docket:* All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air Program, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129. The EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Adam Clark, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado, 80202-1129, (303) 312-7104, [clark.adam@epa.gov](mailto:clark.adam@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document wherever “we,” “us” or “our” is used, we mean the EPA.

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## **I. Background**

On March 12, 2008, the EPA revised the levels of the primary and secondary 8-hour ozone NAAQS to 0.075 parts per million (ppm). 73 FR 16436 (Mar. 27, 2008). The 2008 ozone NAAQS are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to the NAAQS, as determined in accordance with Appendix P to 40 CFR part 50. Under Appendix P, digits to the right of the third decimal place are truncated.

Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised NAAQS, SIPs meeting the applicable “infrastructure” elements of sections 110(a)(1) and (2). One of these applicable infrastructure elements, CAA section 110(a)(2)(D)(i), requires SIPs to address the “good neighbor” provision which requires states to prohibit certain adverse air quality effects on other states due to interstate transport of pollution.

### *A. The EPA’s Interpretation and Implementation of the Good Neighbor Provision*

Specifically, section 110(a)(2)(D)(i)(I) requires SIPs to contain adequate 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 in any other state. The two provisions of this section are referred to as prong 1 (significant contribution to nonattainment) and prong 2 (interfere with maintenance). Section 110(a)(2)(D)(i)(II) requires SIPs to contain adequate provisions to prohibit emissions that will interfere 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).

The EPA has established a four-step interstate transport framework to address the prong 1 and 2 requirements for ozone and fine particulate matter (PM<sub>2.5</sub>) NAAQS through the development and implementation of several previous rulemakings.<sup>1</sup> The four steps of this framework are as follows: (1) identify downwind air quality problems; (2) identify upwind states that impact those downwind air quality problems enough to warrant further review and analysis; (3) identify the emissions reductions, if any, necessary to prevent an identified upwind state from contributing significantly or interfering with maintenance with respect to those downwind air quality problems; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions. The EPA has applied this framework in various actions addressing prongs 1 and 2 for the PM<sub>2.5</sub> and ozone NAAQS.<sup>2</sup>

On August 4, 2015, the EPA issued a Notice of Data Availability (NODA) containing air quality modeling to assist states with meeting section 110(a)(2)(D)(i)(I) requirements for the 2008 ozone NAAQS within the context of the four-step framework.<sup>3</sup> Specifically, the air quality modeling helped states address steps 1 and 2 of the framework by (1) identifying locations in the

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<sup>1</sup> See, e.g., Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone (also known as the NO<sub>x</sub> SIP Call). 63 FR 57356 (October 27, 1998); Clean Air Interstate Rule (CAIR) Final Rule. 70 FR 25162 (May 12, 2005); Cross-State Air Pollution Rule (CSAPR) Final Rule. 76 FR 48208 (August 8, 2011); CSAPR Update. 81 FR 74504 (October 26, 2016).

<sup>2</sup> See, e.g., “Interstate Transport Prongs 1 and 2 for the 2012 Fine Particulate Matter (PM<sub>2.5</sub>) Standard for Colorado, Montana, North Dakota, South Dakota and Wyoming,” 83 FR 21227 (May 9, 2018); “Approval and Promulgation of Air Quality State Implementation Plans; California; Interstate Transport Requirements for Ozone, Fine Particulate Matter, and Sulfur Dioxide,” 83 FR 5375 (February 7, 2018).

<sup>3</sup> See Notice of Availability of the Environmental Protection Agency’s Updated Ozone Transport Modeling Data for the 2008 Ozone National Ambient Air Quality Standard (NAAQS), 80 FR 46271 (August 4, 2015); see also “Updated Air Quality Modeling Technical Support Document for the 2008 Ozone NAAQS Transport Assessment,” August 2015 (included in the docket to the NODA).

United States where the EPA anticipated nonattainment or maintenance issues in 2017 for the 2008 ozone NAAQS, and (2) quantifying the projected contributions from emissions from upwind states to downwind ozone concentrations at the receptors in 2017. The EPA also used this modeling to support the Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS (“CSAPR Update”) proposed rule (80 FR 75706, December 3, 2015); we updated the modeling in 2016 to support the CSAPR Update final rule (81 FR 74504, October 26, 2016). The projections in this updated version of the modeling (hereon referred to as the “CSAPR Update modeling”) were part of the technical record for the EPA’s February 3, 2017 final action on the prongs 1 and 2 portions of the Wyoming 2008 Ozone Infrastructure SIP, which is discussed in more detail later in this notice. 82 FR 9153.

In the CSAPR Update, the EPA used the CSAPR Update modeling to identify downwind nonattainment and maintenance receptors at step 1 of the four-step framework (*see* 81 FR 74530-74532, October 26, 2016). Specifically, the EPA identified nonattainment receptors as those monitoring sites with current measured design values exceeding the NAAQS that also have projected (*i.e.*, in 2023) average design values exceeding the NAAQS. The EPA identified maintenance receptors as those monitoring sites with projected maximum design values exceeding the NAAQS. The EPA considered all nonattainment receptors to also be maintenance receptors because a monitoring site with a projected average design value above the standard necessarily also has a projected maximum design value above the standard. Monitoring sites with projected maximum design values that exceed the standard and which are not also nonattainment receptors are thus referred to as maintenance-*only* receptors.

To address step 2 of the framework for the CSAPR Update, the EPA used the CSAPR

Update modeling to determine whether an eastern state's impact on each projected downwind air quality problem would be at or above a specific threshold. The EPA's modeling projected ozone concentrations and contributions in 2017, which would be the last ozone season before the then-upcoming July 2018 attainment date for nonattainment areas classified as Moderate for the 2008 ozone NAAQS. Consistent with the original CSAPR rulemaking (76 FR 48208, August 8, 2011), the EPA applied a threshold of one percent of the 2008 ozone NAAQS of 75 ppb (0.75 ppb) to identify linkages between upwind states and downwind nonattainment and maintenance receptors in the CSAPR Update. 81 FR 74518 (October 26, 2016). If a state's impact on identified downwind nonattainment and maintenance receptors did not exceed 0.75 ppb, the state was not considered "linked" to those receptors and was therefore not considered to significantly contribute to nonattainment or interfere with maintenance of the standard in those downwind areas. If a state's impact exceeded the 0.75 ppb threshold, that state was considered "linked" to the downwind nonattainment or maintenance receptor(s) and the state's emissions were evaluated further, taking into account both air quality and cost considerations, to determine what, if any, emissions reductions might be necessary to address the state's obligation pursuant to CAA section 110(a)(2)(D)(i)(I).

*B. Wyoming's Submittals to Address the Good Neighbor Provisions*

On February 6, 2014, the Wyoming Department of Environmental Quality (WDEQ) submitted a certification that the approved Wyoming SIP adequately addressed the "good neighbor" provision for the 2008 ozone NAAQS. *See* 81 FR 71712, 71713 (Nov. 18, 2016). On November 18, 2016, the EPA proposed to approve Wyoming's submission for prong 1 and disapprove Wyoming's submission for prong 2 of the good neighbor provision (81 FR 81712),

and on February 3, 2017, the EPA finalized the proposed approval and disapproval. 82 FR 9153. This disapproval established a 2-year deadline, under CAA section 110(c), for the EPA to promulgate a federal implementation plan (FIP) or approve a SIP that meets the requirements of prong 2 of the good neighbor provision for the 2008 ozone NAAQS for Wyoming. The EPA acted on the portions of the submission addressing prongs 1, 3 and 4 of the good neighbor provision for the 2008 ozone NAAQS.<sup>4</sup>

The EPA based its February 3, 2017 disapproval for prong 2 in the first instance on a determination that the February 6, 2014 submission lacked an analysis to support the conclusion that the Wyoming SIP contained adequate provisions prohibiting emissions that will interfere with maintenance of the 2008 ozone NAAQS in any other state. 81 FR 81714 (proposal); 82 FR 9147 (final). As explained in the notices for the proposed and final action, in accordance with the decision of the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) in *North Carolina v. EPA*, 531 F.3d 896, 910–11 (2008), states and the EPA are required to give “independent significance” to prong 2 by considering the potential impacts of emissions on areas that may have issues maintaining the standards. 82 FR 9145.

However, if the EPA’s supplemental analysis supports the state’s conclusion that the SIP is adequate to address the statutory requirements, we may approve the state’s submittal. 82 FR 9149. In this case, the EPA evaluated the CSAPR Update modeling, described above. That modeling showed that emissions from Wyoming were not linked to any nonattainment receptors for the 2008 ozone NAAQS in the 2017 analytic year. However, the modeling also showed that

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<sup>4</sup> See 81 FR 70362 (Oct. 12, 2016) for prong 3 final action, and 82 FR 9142 (February 3, 2017) for prongs 1 and 4 final action.

emissions from Wyoming were projected to contribute above the 1% threshold to one maintenance receptor at the Chatfield Reservoir in Douglas County, Colorado (monitor I.D. # 80350004).<sup>5</sup> The CSAPR Update modeling identified two other maintenance receptors in the Denver Metro/North Front Range (DMNFR) 2008 Ozone Moderate nonattainment area, but emissions from Wyoming were projected to impact those receptors below the 0.75 ppb threshold. For the purpose of our action on the Wyoming SIP submission, we determined that a 1% screening threshold was appropriate to use for the Douglas County maintenance receptor because the air quality problem in that area resulted in part from the relatively small individual contributions of upwind states that collectively contribute a large portion of the ozone concentrations (9.7%), comparable to some eastern receptors addressed in the CSAPR Update. 82 FR 9149-50. The CSAPR Update modeling projected that Wyoming emissions would contribute 1.18 ppb, or approximately 1.57% of the 2008 ozone NAAQS, at the Douglas County maintenance receptor in 2017.<sup>6</sup> As this contribution was above the screening threshold, we could not conclude on the basis of the CSAPR Update modeling that Wyoming's SIP contained sufficient provisions to prohibit emissions that will interfere with maintenance of the 2008 ozone NAAQS at the Douglas County maintenance receptor. As a result, the EPA disapproved the February 6, 2014 submittal for prong 2.

## **II. State Submittal**

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<sup>5</sup> The Douglas County maintenance receptor is located in the 2008 ozone Denver Metro/North Front Range (DMNFR) Moderate nonattainment area. *See* [https://www3.epa.gov/airquality/greenbook/hnp.html#Ozone\\_8-hr.2008.Denver](https://www3.epa.gov/airquality/greenbook/hnp.html#Ozone_8-hr.2008.Denver). However, the EPA has routinely interpreted the section 110(a)(2)(D)(i)(I) requirements to be independent of formal designations because any area may be in nonattainment or struggle to maintain the NAAQS, regardless of formal area designation.

<sup>6</sup> The updated modeling data (published on EPA's website at <https://www.epa.gov/airmarkets/final-cross-state-air-pollution-rule-update> on September 7, 2016) are available in the docket for this action.



WDEQ submitted a new interstate transport SIP on October 17, 2018, providing additional information to demonstrate that the State meets the prong 2 requirement for the 2008 ozone NAAQS. In this submittal, WDEQ addressed the prong 2 requirements of section 110(a)(2)(D)(i)(I) using a weight of evidence analysis and concluded that emissions from Wyoming will not interfere with maintenance of the 2008 ozone NAAQS in any other state. The submittal states that weight of evidence analyses are a valid approach to assessing ozone transport in western states and have been used by the EPA and in submittals by other western states, specifically California. Consistent with the CSAPR Update modeling, which only found one potential linkage with the Douglas County maintenance receptor, WDEQ focused its analysis on the potential impacts of Wyoming emissions on that receptor. WDEQ's analysis included information about recent and forthcoming emission reductions at sources in Wyoming; ozone modeling for the 2023 analytic year from the EPA's October 27, 2017 memorandum "Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I)" (hereon "October 2017 Memo"); and the EPA's proposed approval (since finalized) of the "Colorado Attainment Demonstration for the 2008 8-Hour Ozone Standard for the DMNFR Moderate nonattainment area" (hereon "DMNFR attainment demonstration"). 83 FR 14807 (April 6, 2018).

WDEQ indicated that the Douglas County monitor was projected to be a maintenance receptor for the year 2017 in the CSAPR Update modeling. However, WDEQ stated that it is unclear whether it should still consider the Douglas County monitor to be maintenance for this NAAQS, given its review of information available subsequent to the CSAPR Update modeling.

Specifically, WDEQ cited the EPA's October 2017 Memo and the State of Colorado's attainment demonstration for the 2008 8-Hour Ozone Standard for the DMNFR nonattainment area to argue that the Douglas County receptor should not be considered a maintenance receptor for the 2008 ozone NAAQS.

First, WDEQ referenced the EPA's October 2017 Memo. As described in further detail in Section III of this notice, the EPA performed air quality modeling, released in the October 2017 Memo, to project 2008 ozone nonattainment and maintenance receptors for the analytic year 2023 to assist the states in addressing remaining prong 1 or prong 2 obligations for the 2008 ozone NAAQS. This modeling projected a maximum design value of 73.2 ppb (below the 75 ppb NAAQS) for the Douglas County receptor in the 2023 analytic year. October 2017 Memo at A-7. WDEQ also cited language from the October 2017 Memo which states that "no areas in the United States, outside of California, are expected to have problems attaining and maintaining the 2008 ozone NAAQS in 2023." *Id.* at 4.

WDEQ then referenced modeling performed by the State of Colorado as part of its DMNFR attainment demonstration.<sup>7</sup> Specifically, WDEQ referenced modeling from Colorado's weight of evidence attainment demonstration in which Colorado removed monitoring data for certain days during 2010-2013 from the calculation of the 2011 baseline ozone design value because these data were likely influenced by atypical events such as stratospheric intrusions or wildfires. Colorado's modeling, which will be discussed in further detail in Section III of this notice, projected the Douglas County monitor would have a maximum modeled design value

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<sup>7</sup> The Colorado 2008 Ozone Moderate Nonattainment Area SIP Submission is available on regulations.gov as document ID # EPA-R08-OAR-2017-0567-0004.

below the 2008 NAAQS in 2017 when the adjusted 2011 baseline was used. 83 FR 14813 (April 6, 2018). As noted by WDEQ, in the EPA's proposed approval of Colorado's DMNFR attainment demonstration, we concurred with Colorado's assessment that this modeling was properly configured, met EPA performance requirements, and was appropriately used in its application. *Id.* The EPA has since finalized our proposed approval of Colorado's DMNFR attainment demonstration. 83 FR 31068 (July 3, 2018).

In its October 17, 2018 submission, WDEQ asserted that the modeling from both the EPA's October 2017 Memo and Colorado's DMNFR attainment demonstration indicate that all future design values for the Douglas County receptor are below the 2008 ozone NAAQS. Therefore, WDEQ asserts that this receptor should no longer be considered a maintenance receptor, as it was identified in the CSAPR Update modeling, but should instead be considered to be attainment.

WDEQ also included information about recent and forthcoming emission reductions at sources in Wyoming in its weight-of-evidence analysis. Specifically, WDEQ provided information about nitrogen oxide (NO<sub>x</sub>) and volatile organic compounds (VOC) emissions reductions that occurred between 2011 and 2017, and NO<sub>x</sub> reductions that will occur before 2023. WDEQ focused on these pollutants as both are precursors to ozone. WDEQ calculated that permitting actions, including Title V permit rescissions for sources that have reduced their emissions from major to minor source levels, accounted for a statewide reduction of 12,392.5 tons per year (tpy) of NO<sub>x</sub> and 905.6 tpy of VOC between 2011 and 2017. WDEQ noted that regulations covering nonpoint sources and reductions from leak detection and repair or fugitive emissions monitoring programs had led to additional VOC reductions, though WDEQ had not

quantified the reductions from these regulations. WDEQ also calculated a 21,525 tpy NO<sub>x</sub> reduction between 2017 and 2023, concluding NO<sub>x</sub> emissions would decrease by nearly 18% from those reported in the 2011 Emission Inventory (the inventory used in the CSAPR Update modeling and October 2017 Memo modeling) by 2023 through permitting actions alone. WDEQ also asserted that the emissions reductions listed in its submission do not appear to have been accounted for in the CSAPR Update modeling.

WDEQ concludes that all elements of its weight-of-evidence analysis combined demonstrate that emissions from the State of Wyoming will not interfere with maintenance of the 2008 8-hour ozone NAAQS in any other state, including at the Douglas County, Colorado receptor.

### **III. EPA's Evaluation**

The EPA has reviewed all elements of WDEQ's weight-of-evidence analysis and additional relevant technical information to determine whether the SIP has adequate provisions to ensure emissions from the state will not interfere with maintenance of the 2008 ozone NAAQS in any other state. The EPA conducted this review within the four-step interstate transport framework. Therefore, the EPA's first step in reviewing WDEQ's submission is to identify downwind air quality problems.

#### *A. Identification of Downwind Air Quality Problems*

The EPA first reviewed WDEQ's information about modeling conducted by the State of Colorado that projected attainment of the 2008 ozone NAAQS at the Douglas County receptor and all other ozone monitors in the DMNFR Moderate ozone nonattainment area in 2017. Based on Colorado's DMNFR attainment demonstration modeling results, WDEQ asserts that the

Douglas County receptor should not be considered a maintenance receptor at step 1 of the four-step interstate transport framework. As noted, the Douglas County receptor was the only maintenance receptor to which emissions from Wyoming contributed above 1% of the 2008 ozone NAAQS in the EPA's 2016 CSAPR Update modeling.

The EPA's review of Colorado's DMNFR attainment demonstration modeling, provided below, begins with an overview of the modeling analysis in the attainment planning context for which it was originally generated. Then, we expand on Wyoming's analysis by considering Colorado's modeling in the context of interstate transport. Specifically, we consider how Colorado's removal of atypical event-influenced monitor data in 2010, 2011 and 2012 from the 2011 baseline ozone design value would impact the CSAPR Update modeling results with regard to the Colorado receptor to which Wyoming was linked.

In Colorado's primary modeling for the DMNFR attainment demonstration, the State calculated relative response factors (RRFs) using the maximum modeled ozone in a 3x3 matrix of grid cells around each ozone receptor to model a 2017 projected concentration of 76.2 ppb at the Douglas County receptor. *See* 83 FR 14811 (April 6, 2018). Because this projection was close to the 75 ppb NAAQS, Colorado developed its DMNFR attainment demonstration using a weight-of-evidence analysis, as recommended by EPA guidance. *Id.* at 14812. Colorado's weight-of-evidence analysis included two modeling analyses in addition to the primary (3x3 matrix) analysis. The first was performed using a 7x7 matrix of grid cells around each receptor. Colorado contended that this model performed better than the 3x3 matrix in simulating the 2011 period when monitored concentrations were compared to model results in the 7x7 matrix, potentially as a result of challenges in accurately simulating meteorological data in Colorado's

complex terrain combined with the use of a high resolution 4-km grid in the Colorado modeling platform. In this modeling analysis, Colorado modeled the Douglas County receptor as attaining the NAAQS in 2017 with a projected concentration of 75 ppb. *Id.* All other receptors in the Denver ozone moderate nonattainment area were also projected as attainment in the modeling analysis using the 7x7 matrix.

In the second modeling analysis, Colorado evaluated high ozone days from 2009 to 2013 that were likely influenced by atypical, extreme, or unrepresentative events (collectively, “atypical events”) such as wildfire or stratospheric intrusion, but were included in the calculation of the 2011 baseline ozone design value.<sup>8</sup> Colorado did not submit formal demonstrations under the Exceptional Events Rule (40 CFR 50.14) for these days because they do not affect the DMNFR’s attainment status and thus do not have regulatory significance under the Exceptional Events Rule. However, these days do affect the baseline design value and thus affect the model projected future design value for 2017. After removing the data that were likely influenced by atypical events, Colorado modeled attainment in 2017 at the Douglas County receptor using both the 3x3 (74 ppb) and 7x7 (73 ppb) matrices for calculating the model RRF. *Id.* at 14813. All other receptors in the DMNFR ozone Moderate nonattainment area were also projected as attainment in 2017 when atypical event-influenced data were removed from the baseline calculation, with the highest projection at any receptor in the area at 74 ppb. As noted in Section II, the EPA concurred with Colorado’s assessment that this modeling was appropriate for Colorado’s weight of evidence attainment demonstration, and subsequently finalized our

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<sup>8</sup> See Colorado’s November 17, 2016 TSD “Analyses in Support of Exceptional Event Flagging and Exclusion for the Weight of Evidence Analysis,” in the docket for this action.

approval of Colorado's attainment demonstration. 83 FR 31068 (July 3, 2018).

While Wyoming listed the DMNFR attainment demonstration modeling results as evidence that the Douglas County receptor should not be considered a maintenance receptor as of 2017, the EPA did not reach the same conclusion based on these results alone. This is because the Colorado modeling results, while appropriate in an attainment planning context, were calculated from a baseline design value that is the weighted average of three 3-year design values. In an interstate transport modeling context, EPA evaluates the transport contribution for both the weighted average design value and individually for each of the three 3-year average design values. As noted in Section I of this proposed action, in the CSAPR Update the EPA identified as "nonattainment receptors" monitoring sites with a current measured value exceeding the NAAQS that also have a projected average design value exceeding the NAAQS and identified maintenance receptors as those monitoring sites with a *projected maximum design value* exceeding the NAAQS. Colorado's DMNFR attainment demonstration modeling results calculated the 2011 baseline by averaging the three relevant design values (2009-2011, 2010-2012, and 2011-2013). Therefore, the 2017 modeled projections presented in the DMNFR attainment demonstration (and referenced by Wyoming) would only have some relevance with regard to whether the Douglas County receptor should be identified as a nonattainment receptor in an interstate transport context. However, the determination of whether the Douglas County receptor should continue to be identified as a maintenance receptor, as it was in the CSAPR Update modeling, is based on the 2017 projection of the maximum of the three base year design values (in this case, 2011-2013).

Nonetheless, the information regarding atypical event-influenced data in the DMNFR

attainment demonstration is relevant to the determination of whether the Douglas County monitor should continue to be identified as a maintenance receptor in the EPA’s 2017 modeling for the 2008 ozone NAAQS. Because the CSAPR Update modeling was conducted in 2016, the EPA did not consider Colorado’s “Analyses in Support of Exceptional Event Flagging and Exclusion for the Weight of Evidence Analysis” in the CSAPR Update modeling.<sup>9</sup> After reviewing this document, the EPA finds it appropriate to consider the impact of removing atypical event-influenced data from the CSAPR Update modeling baseline as part of our review of Wyoming’s prong 2 weight-of-evidence analysis. After removal of the atypical event-influenced data from the 2009-2013 baseline, listed in Table 1 below, the baseline maximum design value at the Douglas County receptor (2011-2013) decreases from 83 ppb to 81 ppb, as shown in Table 2.

**Table 1: Douglas County Ozone Monitoring Data Flagged as Atypical Event and Excluded from Baseline Design Value Calculation**

Date	April 13, 2010	June 7, 2011	July 4, 2012	August 9, 2012	August 21, 2012
8-hour Ozone Concentration (ppb)	79	84	96	98	80

**Table 2: Douglas County Ozone Monitoring with Data Flagged as Atypical Event Included and Excluded**

Year	2011	2012	2013	2011-2013 DV (truncated)
4 <sup>th</sup> Max Monitored Value	82	86	83	83

<sup>9</sup> As noted, this document is available in the docket for this proposed action.



with Atypical Event Data Included (ppb)				
4 <sup>th</sup> Max Monitored Value with Atypical Event Data Excluded (ppb)	81	79	83	81

We then applied the RRF from the CSAPR Update Modeling to this adjusted design value, and the results are shown in Table 3 below.<sup>10</sup>

**Table 3: Revised CSAPR Update Modeling Maximum Design Value for the Douglas County Receptor**

2009-2013 Max DV	2009-2013 Max DV with Atypical Event Data Excluded	CSAPR Update Modeling 2017 RRF	CSAPR Update Modeling 2017 Max DV	CSAPR Update Modeling 2017 Max DV with Atypical Event Data Excluded
83	81	.9358	77.6	75.8

The projected maximum design value of 75.8 shown in Table 3 (which excludes monitoring data determined by Colorado to be influenced by atypical events from the baseline period) indicates attainment of the 2008 ozone NAAQS at the Douglas County receptor in 2017. On this basis, the EPA is proposing to concur with Wyoming’s assertion that the Douglas County receptor should not be considered a maintenance receptor at step 1 of the four-step interstate transport framework.

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<sup>10</sup> The EPA notes that the RRFs are based on the “3x3” approach as recommended in EPA’s Draft Modeling Guidance for Demonstrating Attainment of the Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze, December 2014.

In its weight of evidence analysis, WDEQ also asserted that the modeling from the EPA's October 2017 Memo indicates no areas in the United States are expected to have problems attaining and maintaining the 2008 ozone NAAQS in 2023 outside of California. This includes a projection of attainment for each receptor in the DMNFR Moderate nonattainment area, most notably the Douglas County receptor. The EPA finds that the modeling from the EPA's October 2017 Memo supports the analysis above regarding whether emissions from Wyoming will interfere with maintenance of the 2008 ozone NAAQS. Details about this modeling analysis are provided in the October 2017 Memo, which is available in the docket for this action.

As with the CSAPR Update, the EPA used the results of the October 2017 Memo modeling to identify as *nonattainment* receptors those monitors that both measure nonattainment based on measured 2014-2016 design values and have a projected average design value exceeding the 2008 ozone NAAQS in 2023 and identify receptors that have a projected maximum design value exceeding the NAAQS in 2023 as *maintenance* receptors.

The October 2017 Memo modeling results indicate that Wyoming emissions will not interfere with maintenance at the Douglas County receptor or elsewhere in the DMNFR Moderate nonattainment area in 2023, because each receptor in the area is projected to attain and maintain the NAAQS in that year. Table 4, below, shows the projected 2023 maximum design values for the three receptors in Colorado that had been projected as maintenance (there were no projected nonattainment receptors in the state) for the year 2017 in the CSAPR Update modeling. Table 4 also shows the projected maximum design values for these receptors when the 2010-2012 DMNFR monitor values that were likely influenced by atypical events were removed from the 2011 baseline, as this baseline was also used for the October 2017 Memo modeling.

**Table 4: Modeled 2023 Maximum Design Values for Colorado Receptors Previously Modeled as Maintenance**

Monitor I.D.	County	Modeled 2023 Max Design Value (ppb) <sup>11</sup>	Modeled 2023 Max Design Value with Atypical Event Data Excluded from 2011 baseline
80350004	Douglas, CO	73.2	71.5
80590006	Jefferson, CO	73.7	71.1
80590011	Jefferson, CO	73.9	72.1

The modeled 73.9 ppb projection at one of the Jefferson County, Colorado receptors is the highest maximum design value for any receptor in the DMNFR Moderate nonattainment area (and the state overall). This decreases to a 72.1 maximum design value when the atypical event-influenced data in the DMNFR are removed from the model’s 2011 baseline. As noted by WDEQ in its October 17, 2018 submission, the only 2008 ozone maintenance receptors projected in 2023 are located in the state of California. Wyoming’s highest modeled contribution to any projected 2023 maintenance receptor is 0.02 ppb (less than 0.03% of the NAAQS) in Kern County, California (monitor I.D. 60295002).<sup>12</sup> Therefore, the EPA proposes to find that emissions from Wyoming will not interfere with maintenance at any area [or monitor] outside of California in 2023, because there are no projected maintenance receptors outside of California in that year. Moreover, the EPA proposes to find emissions from Wyoming will not interfere with any projected maintenance receptors in California in 2023 because their modeled contribution at

<sup>11</sup> See October 2017 Memo at page A-7.

<sup>12</sup> See the EPA’s March 27, 2018 Memo “Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I),” at page C-6.

each such receptor is well below 1% of the 2008 ozone NAAQS at step 2 of the four-step framework.

In referencing the modeling from both the EPA's October 2017 Memo and Colorado's DMNFR attainment demonstration, WDEQ asserted that the Douglas County receptor is projected to attain and maintain the NAAQS in both 2017 and 2023. On this basis, there would be no requirement for any state to address upwind ozone contributions to the Douglas County receptor in advance of 2023, because Colorado's DMNFR attainment demonstration modeling projects the 2008 ozone NAAQS is currently being met.<sup>13</sup> As just discussed, the EPA finds that the relevance of the DMNFR attainment demonstration modeling to Wyoming's weight-of-evidence analysis is not the projection of attainment Wyoming references, because that modeling does not project a maximum design value as is done in interstate transport modeling. Rather, the relevance of the DMNFR attainment demonstration is the showing that monitor values from the 2011 baseline were likely influenced by atypical events, which supports the EPA's exclusion of the same values from the CSAPR Update modeling and shows that the Douglas County monitor should not be identified as a maintenance receptor in 2017. Based on the EPA's review of the two modeling analyses referenced in WDEQ's submission, and our additional analysis as described, the EPA is proposing to conclude that there are no downwind air quality (specifically maintenance) problems in 2017 to which Wyoming contributes, and that this conclusion is further bolstered by the October 2017 Memo modeling that shows these areas will continue to

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<sup>13</sup> The EPA is not proposing to make any determinations regarding the DMNFR Moderate nonattainment area, most notably the CAA section 181(b)(2) requirement that the EPA determine whether the area attained the NAAQS by its applicable attainment date. Colorado's attainment demonstration modeling cited by WDEQ was found by the EPA to meet the requirements for a modeled demonstration that the area will meet the standard in the attainment year. 83 FR 31069.

maintain the standard in 2023. Therefore, the EPA proposes to find that emissions from Wyoming sources will not interfere with maintenance of the 2008 ozone NAAQS in downwind states.

As discussed in Section II, WDEQ also provided information about recent and forthcoming ozone precursor emissions reductions in Wyoming. The EPA agrees with WDEQ that these reductions have been and/or will be beneficial in reducing ozone transport from Wyoming to downwind states. However, we did not quantitatively analyze these reductions because of our proposed finding above that there are no relevant downwind air quality issues. However, we invite comment on these reductions and their relevance to our proposed action. Regarding WDEQ's assertion that the emissions reductions listed in its submission that occurred between 2011 and 2017 do not appear to have been accounted for in the EPA's 2016 CSAPR Update modeling, the CSAPR Update modeling includes all implemented or scheduled federally enforceable emissions reductions measures that were known at the time the EPA conducted this modeling, and therefore, we are not relying on WDEQ's assertion.

#### *B. EPA's Proposed Conclusion*

Based on our review of WDEQ's October 17, 2018 submission and other relevant information, the EPA proposes to concur with WDEQ's conclusion that Wyoming will not interfere with maintenance of the 2008 ozone NAAQS in the DMNFR Moderate nonattainment area, specifically the Douglas County receptor, or in any other downwind state. The EPA is therefore proposing to approve Wyoming's October 17, 2018 submittal, which states that Wyoming's SIP includes adequate provisions to prohibit sources or other emission activities

within the State from emitting ozone precursors in amounts that will interfere with maintenance by any other state with respect to the 2008 ozone NAAQS.

#### **IV. Proposed Action**

The EPA is proposing to fully approve Wyoming's October 17, 2018 submittal addressing CAA section 110(a)(2)(D)(i)(I), prong 2, for the 2008 ozone NAAQS. Should we finalize this proposed approval, the EPA will no longer have an obligation under CAA section 110(c)(1) to promulgate a FIP addressing the previous disapproval. The EPA is soliciting public comments on this proposed action and will consider public comments received during the comment period.

#### **V. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the 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 CAA. Accordingly, this action merely proposes to approve 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 (Public Law 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 CAA; 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 proposed rule does not have tribal implications and will not impose

substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

**List of Subjects in 40 CFR Part 52**

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

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

Dated: February 6, 2019.

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Douglas Benevento,  
Regional Administrator,  
EPA Region 8.

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