

MICHAEL G. BACA

EDUCATION

September 1999-June 2004 Carleton College Northfield, MN
Bachelors Degree in Chemistry

PROFESSIONAL EXPERIENCE

January 2019-Present
New Mexico Environment Department, Air Quality Bureau
Staff Manager

- Manage the Control Strategies Section to insure proper implementation of the federal Clean Air Act in New Mexico through the development and revision of the State Implementation Plan and other air quality management plans and rules for the state.
- Oversee, lead and assist with rulemaking and section projects including the preparation of testimony and exhibits to present before the Environmental Improvement Board for adoption of rules and management plans.
- Manage air quality programs and research projects to ensure proper procurement procedures, awarding of contracts and grants, timely submission of deliverables and appropriate financial expenditures to meet contractual obligations and compliance with state rules.
- Ensure that the Bureau's Performance Measures are achieved through high technical and professional standards while maintaining the section as a desirable place to work.
- Assign, prioritize and oversee completion of tasks and projects by reviewing work products and providing timely, substantive feedback including guidance to staff on programs, policies, rules, regulations, and resources.
- Conduct meaningful and constructive employee evaluations by providing appropriate recognition of strengths, weaknesses and recommendations for improvement.
- Fill vacancies by completing efficient and effective personnel hiring actions.

July 2008-December 2018
New Mexico Environment Department, Air Quality Bureau
Environmental Analyst-Advanced

- Represent the State of New Mexico as the air quality liaison with border air quality agencies and stakeholders, participating in the Joint Advisory Committee and the USEPA Border 2020 Program.
- Develop and prepare technical testimony and exhibits for public hearings in front of the Environmental Improvement Board to present and defend air quality plans and rules for adoption in New Mexico, including state implementation plans required by the USEPA.
- Analyze ambient air quality monitoring data and prepare technical support documents for submission to the USEPA for high wind blowing dust events that cause air pollution episodes.

- Conduct public education and outreach meetings and develop educational material regarding air quality, rule requirements, and rule development.
- Review and comment on Title V and PSD permits, Environmental Impact Statements and Environmental Assessments in the border region for compliance with federal and state rules and standards.
- Manage air quality research projects and contracts in the border area to ensure timely submission of deliverables and appropriate financial expenditures.

February 2005 -July 2008

New Mexico Environment Department, Field Operations

Environmental Scientist and Specialist-Advanced

- Review engineering plans and approve permits for construction of swimming pool and bath facilities.
- Oversee district operations to ensure adequate permitting and inspection of public swimming pool facilities.
- Conduct training for swimming pool department staff and operators.
- Permit and inspect restaurants and food processors, swimming pool facilities, and liquid waste disposal system installations for compliance with applicable regulations.
- Conduct public education and outreach to help the regulated and general public comply with administrative requirements and state regulations.

KERWIN C. SINGLETON

EDUCATION

Bachelor of Science, Chemical Engineering 1982

University of Missouri - Columbia

EXPERIENCE

New Mexico Environment Department Santa Fe, New Mexico

August 2004 - Present

Planning Section Chief – Air Quality Bureau

June 2018 – Present

The Planning Section of the Air Quality Bureau includes the Control Strategies, Dispersion Modeling, Emissions Inventory, and Small Business Assistance Programs. The control strategies section is responsible for preparing state implementation plan, policies, and regulations for air quality. The dispersion modeling and emission inventory section ensures that all air dispersion modeling analyses submitted to our agency are accurate and complete, assists major sources with the submittal of annual emissions inventories, and performs a quality control check of submitted data prior to certification and submittal to the US EPA. The Small Business Assistance Program assists small businesses in meeting air quality regulatory requirements.

Manager, Control Strategies - Air Quality Bureau

July 2008 – June 2018

As the Manager of Control Strategies, managed a staff of environmental analysts for the development of air quality plans and regulations for the State of New Mexico, including providing guidance and assistance to staff to ensure that plans and regulations are successfully adopted by the Environmental Improvement Board; providing technical, fiscal, performance and administrative analysis on draft bills during the legislative session; and representing the Department at stakeholder meetings on issues related to air quality plans and rule development.

Environmental Scientist & Specialist – Advanced

August 2004 - July 2008

As a permit writer, processed all assigned air quality permit applications (New Source Review, Prevention of Significant Deterioration, and Title V) to final action before or by regulatory deadlines in accordance with approved Department policies and standards and performed special projects to achieve the enhancement of the Bureau's goals.

Concept Technical Group Engineer

Menomonee Falls, Wisconsin
March 2003 - July 2004

As a staff engineer, provided project-specific environmental support to the Johnson Controls Battery Group manufacturing sites and group headquarters, including preparation of air quality construction permit applications with detailed emissions calculations and supporting documentation; annual emission inventories; Toxic Release Inventory Form R reports; updating storm water management and contingency plans; and development of standardized environmental procedures.

RMT, Inc. Chicago, Illinois

December 1994 - January 2003

Senior Project Manager/Operations Manager

As a Senior Project Manager, guided clients through the complexities of air pollution permitting, reporting and compliance in multiple states to minimize their regulatory burden and obtain permits according to schedule. As the Chicago Operations Manager, managed three staff engineers, identified and developing project opportunities for engineers to meet or exceed utilization goals, and provided training and workload leveling.

Johnson Controls Battery Group, Inc. Milwaukee, Wisconsin March 1992 - December 1994

Environmental Engineer

As an Environmental Engineer, maintained air quality compliance at thirteen lead-acid battery plants and successfully obtained air construction permits to support all new equipment installations and plant modifications.

Olin Corp. – Brass Group/Winchester Operations East Alton, Illinois June 1989 - March 1992

Senior Environmental Engineer

As a Senior Environmental Engineer, prepared and submitted all air pollution permit applications and annual emissions reports for the casting plant, brass mill and Winchester ammunition operations. Duties also included the development and implementation of an obsolete chemical identification project to minimize future liabilities; the investigation and categorization of the use of hazardous solvents and implementation of non-hazardous alternatives that resulted in the elimination of several waste streams and a reduction of waste management costs; and providing comprehensive environmental permitting and compliance assistance for satellite operations in Missouri and Ohio.

Missouri Department of Natural Resources St. Louis, MO July 1984 - June 1989

Environmental Engineer I/II

As an Environmental Engineer, conducted inspections of hazardous waste generators and treatment/storage/disposal Facilities in the St. Louis region for compliance with state and federal regulations, and represented the Department at industrial association meetings and seminars.

**STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD**

**IN THE MATTER OF:
CERTIFICATION FOR THE 2015 OZONE NAAQS
TRANSPORT OR “GOOD NEIGHBOR” PROVISION
OF THE STATE IMPLEMENTATION PLAN.**

**New Mexico Environment Department,
*Petitioner.***

No. EIB 21-05(R)

WRITTEN TESTIMONY OF MICHAEL BACA

Witness Qualifications:

Michael Baca. Mr. Baca is the Staff Manager of the Control Strategies Unit of the New Mexico Environment Department’s (NMED or Department) Air Quality Bureau (aqb). He has worked in the aqb since July of 2008. Prior to this, he worked for NMED’s Environmental Health Division for 3 years as an Environmental Scientist. Mr. Baca holds a B.A. Degree in Chemistry from Carleton College. Exhibit 1 contains Mr. Baca’s complete resume.

I. Introduction / Background

On October 1, 2015, the United States (U.S.) Environmental Protection Agency (EPA) promulgated a revision to the ozone National Ambient Air Quality Standards (2015 ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm) or 70 parts per billion (ppb) as is commonly used to describe ozone concentrations (Exhibit 7a). EPA retained the form of the standards with the design value for a monitoring site calculated as the annual fourth maximum 8-hour average, averaged over three years. A design value is the metric used to determine compliance with a given NAAQS for an area (i.e., attainment or nonattainment).

Section 110(a)(1) of the federal Clean Air Act (CAA) requires states to submit, within 3 years after promulgation of a new or revised standard, SIPs meeting the applicable requirements of section 110(a)(2). SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs (iSIPs) and the applicable elements under 110(a)(2) are referred to as infrastructure requirements. One of these applicable requirements is found in section 110(a)(2)(D)(i), otherwise known as the “good neighbor” provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. NMED addressed and EPA approved the other elements of section 110(a)(2) in a separate iSIP submission (Exhibit 7b)

There are four so-called “prongs” within CAA section 110(a)(2)(D)(i): section 110(a)(2)(D)(i)(I) contains prongs 1 and 2, while section 110(a)(2)(D)(i)(II) includes prongs 3 and 4. The New Mexico Good Neighbor SIP Certification (proposed SIP certification) addresses the first two prongs under section 110(a)(2)(D)(i)(I) with prongs 3 and 4 addressed in the separate iSIP submission mentioned previously. Under prongs 1 and 2 of the good neighbor provision, a SIP for a new or revised NAAQS must contain

adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or from interfering with maintenance of the NAAQS in another state (prong 2). Under section 110(a)(2)(D)(i)(I) of the CAA, the EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under section 110(a)(2)(D)(i)(I) (Exhibit 9a).

EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards (Exhibit 7c), and the Cross-State Air Pollution Rule Update (CSAPR Update) for the 2008 ozone NAAQS (Exhibit 7d). These actions only addressed interstate transport in the eastern U.S. and did not address the 2015 ozone NAAQS. For purposes of CSAPR and the CSAPR Update action, the western U.S. was considered to consist of the 11 western contiguous states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Washington, and Wyoming. The eastern U.S. was considered to consist of the 37 states east of the 11 western states.

Through the development and implementation of CSAPR, the CSAPR Update and previous regional rulemakings pursuant to the good neighbor provision (i.e., NO_x SIP Call (Exhibit 7e) and Clean Air Interstate Rule (Exhibit 7f)), the EPA, working in partnership with states, developed the following four-step interstate transport framework to address the requirements of the good neighbor provision for the ozone NAAQS: (1) identify downwind air quality problems; (2) identify upwind states that impact those downwind air quality problems sufficiently such that they are considered “linked” and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), considering cost and air quality factors, to prevent linked upwind states identified in step 2 from contributing significantly to nonattainment or interfering with maintenance of the NAAQS at the locations of the downwind air quality problems; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

The EPA has released several documents containing information relevant to evaluating interstate transport with respect to the 2015 ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) with preliminary interstate ozone transport modeling with projected ozone design values for 2023, on which they requested comment (Exhibit 7g). The year 2023 was used as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas. On October 27, 2017, EPA released a memorandum (October 2017 Memorandum, Exhibit 9b) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA. Although the October 2017 Memorandum also released data for a 2023 modeling year, EPA specifically stated that the modeling may be useful for states developing SIPs to address remaining good neighbor obligations for the 2008 ozone NAAQS but did not address the 2015 ozone NAAQS. On March 27, 2018, EPA issued an additional memorandum (March 2018 Memorandum, Exhibit 9c) indicating the same 2023 modeling data released in the October 2017 memorandum would also be useful for evaluating potential downwind air quality problems with respect to the 2015 ozone NAAQS (i.e., step 1 of the four-step framework).

The March 2018 Memorandum included newly available contribution modeling results to assist states in evaluating their impact on potential downwind air quality problems (i.e., step 2 of the four-step framework) in their efforts to develop good neighbor SIPs for the 2015 ozone NAAQS to address their interstate transport obligations. The EPA subsequently issued two more memoranda in August (Exhibit

9d) and October 2018 (Exhibit 9e), providing guidance to states developing good neighbor SIPs for the 2015 ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in step 2 and considerations for identifying downwind areas that may have problems maintaining the standard (under prong 2 of the good neighbor provision) at step 1 of the framework.

The March 2018 Memorandum describes the process and results of the updated photochemical and source-apportionment modeling used to project ambient ozone concentrations for the year 2023 and the state-by state impacts on those concentrations. The March 2018 Memorandum also explains that the selection of the 2023 analytic year aligns with the 2015 ozone NAAQS attainment year for Moderate nonattainment areas. As described in more detail in the October 2017 and March 2018 Memoranda, the EPA used the Comprehensive Air Quality Model with Extensions (CAMx version 6.40) to model average and maximum design values in 2023 to identify potential monitoring sites that are projected to have problems attaining or maintaining the 2015 ozone NAAQS. These monitoring sites are referred to as nonattainment and maintenance receptors.

For purposes of identifying potential nonattainment and maintenance receptors in 2023, the EPA applied the same approach used in the CSAPR Update, wherein the EPA considered a combination of monitoring data and modeling projections to identify monitoring sites that are projected to have problems attaining or maintaining the NAAQS. Specifically, the EPA identified nonattainment receptors as those monitoring sites with 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. This included sites with measured values below the NAAQS but with projected average and maximum design values exceeding the NAAQS, and monitoring sites with projected average design values below the NAAQS but with projected maximum design values exceeding the NAAQS. The EPA included the design values and monitoring data for all monitoring sites projected to be potential nonattainment or maintenance receptors based on the updated 2023 modeling in Attachment B to the March 2018 memorandum. The EPA used 2016 ozone design values, based on 2014-2016 monitoring data, which were the most current data at the time of their analysis.

After identifying potential downwind nonattainment and maintenance receptors, the EPA next performed nationwide, state-level ozone source-apportionment modeling to estimate the expected impact from each state to each nonattainment and maintenance receptor. The EPA included contribution information resulting from the source-apportionment modeling in Attachment C to the March 2018 Memorandum. Exhibits 7g, 9b, 9c and 9g contain specific and detailed information on the modeling and analysis.

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

As noted previously, on August 31, 2018, the EPA issued a memorandum (the August 2018 Memorandum) providing guidance concerning potential contribution thresholds that may be appropriate to apply with respect to the 2015 ozone NAAQS in step 2. Consistent with the process for selecting the one percent threshold in CSAPR and the CSAPR Update, the Memorandum included analytical information regarding the degree to which potential air quality thresholds would capture the collective amount of upwind contribution from upwind states to downwind receptors for the 2015 ozone NAAQS. The August 2018 Memorandum indicated that, based on the EPA's analysis of its most recent modeling data, the amount of upwind collective contribution captured using a 1 ppb threshold is generally comparable, overall, to the amount captured using a threshold equivalent to one percent of the 2015 ozone NAAQS (i.e., 0.70 ppb). Accordingly, the EPA indicated that it may be reasonable and appropriate for states to use a 1 ppb contribution threshold, as an alternative to the one percent threshold, at step 2 of the four-step framework in developing their SIP revisions addressing the good neighbor provision for the 2015 ozone NAAQS.

While the March 2018 Memorandum presented information regarding the EPA's latest analysis of ozone transport following the approaches the EPA has taken in prior regional rulemaking actions, the EPA has not made any final determinations regarding how states should identify downwind receptors with respect to the 2015 ozone NAAQS at step 1 of the four-step framework. Rather, the EPA noted that states have flexibility in developing their own SIPs to follow different analytical approaches than the EPA's, so long as their chosen approach has an adequate technical justification and is consistent with the requirements of the CAA. NMED used EPA's analytical framework and modeling results for the analysis of ozone transport due to our limited financial resources to contract for, and lack of expertise to conduct, national photochemical and source apportionment modeling. Furthermore, this approach is consistent with the all of other western states' good neighbor SIP submittals and provides a common framework for EPA to conduct their SIP submission review.

II. New Mexico's Proposed Good Neighbor SIP Certification: Four Step Framework and Weight of Evidence Analysis

The analysis included with the proposed SIP Certification fulfills New Mexico's obligation to address interstate transport. The analysis demonstrates that New Mexico does not cause or contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. For air quality regulatory purposes, the City of Albuquerque and Bernalillo County are a separate, combined jurisdiction from the rest of New Mexico. Therefore, NMED and the City of Albuquerque Environmental Health Department (EHD) are responsible for separate submittals to EPA for the 2015 ozone NAAQS good neighbor requirements. While these are separate submittals, NMED worked closely with EHD during their development of a good neighbor SIP and applied a common analytical framework addressing the entire state. NMED and EHD worked closely with the Dallas EPA Regional Office (EPA Region VI) during the planning and development of the proposed SIP Certification.

New Mexico relied on the results of EPA's modeling, contained in the March 2018 Memorandum, to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in New Mexico. Based on New Mexico's review of EPA's modeling assumptions, model performance evaluation, and the modifications made in response to public comments, New Mexico determined that EPA's future year projections were appropriate for purposes of evaluating New Mexico's impact on attainment and maintenance of the 2015 ozone NAAQS in other states. New Mexico compared these values to a screening threshold of 0.70 ppb, representing one percent (1%) of the 2015 ozone NAAQS. Since New Mexico's impacts exceeded this threshold at two receptors in Colorado,

further evaluation of emissions from New Mexico sources was required to determine if they significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

a. Step 1

The March 2018 Memorandum identifies potential downwind nonattainment and maintenance receptors, using the definitions applied in the CSAPR Update to calculate future year design values. The March 2018 memorandum identifies 57 potential nonattainment and maintenance receptors in the western U.S.: 2 in Arizona, 49 in California, and 6 in Colorado. The March 2018 Memorandum also provides contribution data regarding the impact of other states on the potential receptors. This contribution data linked New Mexico to one potential downwind nonattainment and one maintenance receptor in Colorado with modeled contributions of 0.70 ppb and 0.77 ppb, respectively. Where New Mexico's impacts were less than one percent at downwind nonattainment and maintenance receptors, NMED finds it is reasonable to conclude that the state's impact will not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state. Nonetheless, consistent with the August 2018 Memorandum, NMED evaluated the use of a 1 ppb contribution threshold, as an alternative to a one percent threshold, at step 2 of the four-step framework in developing their SIP revisions addressing the good neighbor provision for the 2015 ozone NAAQS. NMED found that this flexibility was not appropriate for our situation and continued the analysis under the four step framework, using the 1% threshold to further evaluate the state's impact on the Colorado receptors.

b. Step 2

The EPA's updated 2023 modeling discussed in the March 2018 Memorandum indicates that New Mexico impacts one potential downwind nonattainment and one maintenance receptor in the Denver, Colorado area. This area is also known as the Denver Metro-North Front Range Ozone Nonattainment Area (Denver/NFR NAA). The EPA's analysis indicates that New Mexico will have a 0.70 ppb impact at a potential nonattainment receptor, the Rocky Flats-N monitoring site (AQS Site ID 080590006), which has a 2023 projected average design value of 71.3 ppb; a 2023 projected maximum design value of 73.7 ppb; and had a 2014-2016 design value of 77 ppb. The EPA's analysis further indicates that New Mexico will have a 0.77 ppb impact at a potential maintenance receptor, the Weld County Tower monitoring site (AQS Site ID 081230009), which has which has a projected 2023 average design value of 70.2 ppb; a 2023 projected maximum design value of 71.4 ppb; and had a 2014-2016 design value of 70 ppb (Exhibit 9c, Attachment C).

To evaluate the significance of New Mexico's ozone contributions to these linked receptors, NMED analyzed additional information regarding the factors that contribute to nonattainment and maintenance issues in the Denver/NFR NAA. Consistent with EPA's approval of other state's good neighbor SIPs (Exhibit 7h and 7i), NMED focused on a weight of evidence analysis of the ozone contributions of linked upwind states compared to the ozone contributions from Colorado.

At the Weld County Tower and Rocky Flats-N receptors, Colorado's contribution of approximately 25 ppb is greater than 30 times larger than New Mexico's contribution of less than 1 ppb. Furthermore, when uncontrollable (i.e., background, offshore, fire and biogenic) emissions are removed from consideration, emissions from Colorado contribute approximately 76%-79% of the future year design value from the controllable anthropogenic sources that contribute to ozone levels at these receptors.

This analysis demonstrates that contributions from Colorado sources far outweigh contributions to ozone concentrations by New Mexico, as well as all other upwind states combined.

The Denver/NFR NAA has a long history with violating the different 8-hour ozone NAAQS promulgated by EPA. It has been designated nonattainment for the 1997, 2008, and 2015 ozone NAAQS, and Colorado continues to focus on local emission reduction strategies in their SIP development to attain the standards. The unique topography and meteorological conditions in and around Denver result in elevated ozone levels. Mountains and ridges comprise the topography of the Denver/NFR NAA region and serve as a bowl that traps local nitrogen oxide (NO_x) and volatile organic compounds (VOC) emissions during the May through September ozone season. Local meteorological conditions and air flow patterns cause these emissions to recirculate within the area, making them a significant cause of ozone formation. Prior day emissions recirculate to form ozone that is carried west up the slopes of the Rocky Mountains during the day, returning the polluted air to the surface as lofted air recirculates to the east as temperatures subside in the evening and nighttime hours.

Although EPA designated the Denver/NFR area as nonattainment of the 2015 ozone NAAQS, trends in measured concentrations of ozone show a decrease in concentration at the two receptors of concern, the Weld County Tower and Rocky Flats-N receptors. In recent years, the ozone design values for these receptors show an overall downward trend in design values since 2013. The design value at Rocky Flats-N monitoring site dropped from 86 ppb in 2008 to 78 ppb in 2018. The Weld County Tower design value shows a similar improvement, dropping from 76 ppb in 2013 to 70 ppb in 2016 where it has remained steady through 2018. Similarly, the number of exceedances of the standard at these receptors has dropped over time.

Similarly, there is a downward trend in ozone precursor emissions of NO_x and VOC from New Mexico, other upwind states, and in Colorado. There is no indication of substantial, consistent increases over time in upwind ozone precursor emissions within these states and this downward trend is expected to continue.

The weight of evidence analysis provided in New Mexico's proposed SIP certification demonstrates that emissions from New Mexico will not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. Additionally, the attainment issues at the linked receptors are primarily a result of ozone contributions from Colorado, not the small ozone contributions from New Mexico and other linked upwind states. Hence, further review and analysis for evaluating interstate impacts under EPA's four-step framework (i.e., Step 3 and 4) is not warranted. This demonstrates that New Mexico's SIP complies with the applicable requirements of prong 1 and 2 under section 110(a)(i)(I) for the 2015 ozone NAAQS.

III. Additional Modeling Information

Consistent with previous efforts, EPA conducted additional modeling in support of their Revised CSAPR Update Rule in March of 2020. The EPA used an updated 2016-based air quality modeling platform (CAMx version 7beta6) which includes emissions, meteorology and other inputs for 2016 as the base year for the modeling. The 2016 modeling platform, including the projected 2023 and 2028 emissions, were used for the 2016 base year and 2023 and 2028 base case air quality model simulations. EPA included the 2021 analytic year in their modeling analysis to capture the attainment date for nonattainment areas under the 2008 and 2015 ozone NAAQS. Because projected emissions inventory data were not available for the 2021 analytic year at the time this modeling was conducted, EPA used

the 2016-Centered measured ozone design values coupled with 2023 model-predicted design values to estimate design values in 2021, based on linear interpolation between these two data points. To quantify ozone contributions in 2021, EPA applied modeling-based contributions in 2023 to the 2021 ozone design values. In addition, EPA modeled the 2028 base case emissions to project ozone design values and contributions in that year. The complete details of the modeling and methods for developing design values and contributions for future years are described in EPA's Technical Support Document for the Revised CSAPR Update modeling (Exhibit 9h).

For projections at the Rocky Flats-N nonattainment receptor, EPA used the observed 2016-centered average design value of 77.3 ppb and 2016-centered maximum design value of 78 ppb for their design value projections and interpolation to 2021. Modeling results indicate that from 2021 to 2028, Colorado's contributions range from 17.31 ppb in 2028 to 18.39 ppb in 2021, with maximum design values ranging from 71.4 ppb in 2028 to 74.1 ppb in 2021. Contributions from New Mexico are much lower, ranging from 0.31 to 0.36 ppb, in 2028 and 2021 respectively.

For projections at the Weld County Tower maintenance receptor, EPA used the observed 2016-centered average design value of 70 ppb and 2016-centered maximum design value of 70 ppb for their design value projections and interpolation to 2021. Modeling results indicate that from 2021 to 2028, Colorado's contributions range from 16.31 ppb in 2023 to 16.59 ppb in 2021, with maximum design values ranging from 66.1 ppb in 2023 to 67.2 ppb in 2021. Contributions from New Mexico are much lower, ranging from 0.48 to 0.49 ppb, in 2023 and 2021 respectively.

These modeling results use updated emissions inventories and observed monitoring data to provide projected design values and contribution results for the purpose of evaluating good neighbor obligations. Unlike previous modeling results that were used for this proposed SIP certification, New Mexico would not be linked to these two receptors, as the state's contribution is shown to be less than 1% of the ozone NAAQS. Additionally, a weight of evidence analysis at step 2 of the four-step framework would not be required per EPA guidance and this is consistent with previously approved SIP submittals from other air quality agencies regarding the good neighbor provision under the 2015 ozone NAAQS.

IV. SIP Submittal Requirements

Section 110(a)(1) of the CAA requires states to submit iSIPs within three years of promulgating a new or revised NAAQS. For the 2015 ozone NAAQS, iSIPs were due to EPA by October 1, 2018. NMED failed to submit the proposed SIP certification by this time due to resource constraints, a lack of information for developing good neighbor SIPs, and guidance from EPA on what constitute an approvable submittal.

Subsequently, EPA published a finding of failure to submit good neighbor SIPs for seven states, including New Mexico, in the Federal Register (Exhibit 7j). This established a 2-year deadline of January 6, 2022 for New Mexico to submit, and EPA approve, a SIP to meet the requirements of the good neighbor provisions. Failure to do so could result in EPA promulgating a Federal Implementation Plan (FIP) to address this provision.

EPA's iSIP Guidance under CAA Sections 110(a)(1) and 110(a)(2) (Exhibit 9f) allows an air agency to make a SIP submission in the form of a certification when an air agency determines that their existing EPA-approved SIP is adequate with respect to a given infrastructure SIP element (or sub-element). This type of submittal may take the form of a letter to EPA from the Governor (or their designee) containing a

certification that the already-approved SIP contains provisions to satisfy the requirements of section 110(a)(2) for purposes of implementing a new or revised NAAQS.

NMED has consulted with its EPA Regional Office and determined that a letter containing a certification would be appropriate for this SIP submittal addressing section 110(a)(2)(i)(I) of the CAA. In addition, as for any SIP submission, NMED provided reasonable notice for comment and an opportunity for a public hearing to satisfy the provisions of sections 110(a)(1), 110(a)(2) and 110(l) as described below.

V. Public Notice and Outreach

The NMED complied with the procedural requirements of SIP submissions under the CAA by providing ample public notice for comment, an opportunity to request a hearing, and conducting this hearing in accordance with EPA's regulations for public hearings contained in 40 CFR 51.102 and 40 CFR part 51, Appendix V, paragraph 2.1(g) (Exhibit 10). Additionally, NMED complied with state requirements for public notice and hearings contained in Rulemaking Procedures - Environmental Improvement Board at 20.1.1 NMAC, and the State Rules Act at 14-1-1, NMSA 1978.

On December 20, 2019, NMED published a 30-day notice of opportunity to comment and request a public hearing on the proposed SIP Certification in the Albuquerque Journal (English and Spanish). Additionally, NMED sent a listserv notice to stakeholders on the same day (Exhibit 11). The Department received comments as well as a request for hearing from Wild Earth Guardians (Exhibit 13). NMED's response to comments are contained in Exhibit 14.

Stakeholder outreach for the hearing was initiated on March 23, 2021, with a listserv notice and emails sent to stakeholders that outlined the AQB's proposal, solicited comments and provided an opportunity to request a NMED open house for the public. NMED published a Public Notice of Hearing in the Albuquerque Journal (English and Spanish) and NM Register (English and Spanish), on March 23, 2021. Additionally, NMED sent the public notice via email to the New Mexico Legislative Council Service, NM Sunshine Portal, the Land Grant Council, NMED's Field Offices and each of environmental contacts for all of New Mexico's Tribes and Pueblos. The notices stated that the Board may decide on the proposed SIP Certification at the conclusion of the hearing or may convene at a later date to consider action on the proposed SIP Certification. The Department did not receive additional comments from the public by the April 22, 2021 deadline. Exhibit 11 contains emails that provided public notice to stakeholders and Exhibit 12 contains the affidavits of publication for the Albuquerque Journal and NM Register.

EPA reviewed the proposed SIP Certification and did not have any negative comments or suggested changes.

VI. Conclusion

The Board has the authority to adopt the proposed SIP Certification pursuant to the Air Quality Control Act, §74-2-5 B(2), NMSA 1978. Furthermore, the existing EPA-approved SIP for New Mexico provides for the regulation, control, prevention or abatement of air pollution within the Board's jurisdiction.

At the time of adoption of the rules contained in the EPA-approved SIP, the Board was required by the Air Quality Control Act, §74-2-5.E, NMSA 1978, to give weight it deemed appropriate to all facts and circumstances, including but not limited to (1) character and degree of injury to or interference with health, welfare, visibility and property; (2) the public interest, including the social and economic value of

the sources and subjects of air contaminants; and (3) technical practicability and economic reasonableness of reducing or eliminating air contaminants from the sources involved and previous experience with equipment and methods available to control the air contaminants involved.

The proposed SIP certification does not adopt any new rules and will not cause injury or interfere with health, welfare, visibility and property, in accordance with §74-2-5.E(1), NMSA 1978. In addition, in accordance with §74-2-5.E(2), NMSA 1978, the Department concludes that the public interest will be served by implementation of the proposed SIP Certification ensuring the ability to implement and enforce the 2015 ozone NAAQS. Finally, the proposed SIP Certification requires no new technology and, with no cost associated with the amendments, is economically reasonable, in accordance with §74-2-5.E(3), NMSA 1978.

The Department concludes that the factors specified by §74-2-5.E, NMSA 1978, all weigh in favor of adopting the proposed SIP Certification.

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

**CERTIFICATION FOR THE 2015 OZONE NAAQS
TRANSPORT OR “GOOD NEIGHBOR” PROVISION
OF THE STATE IMPLEMENTATION PLAN**

No. EIB 21-05(R)

**PETITION FOR ADOPTION OF STATE IMPLEMENTATION PLAN
CERTIFICATION AND REQUEST FOR PUBLIC HEARING**

Pursuant to NMSA 1978, § 74-2-5 (2007), The Air Quality Bureau (“Bureau”) of the New Mexico Environment Department (“Department”) hereby petitions the Environmental Improvement Board (“Board”) to adopt the State Implementation Plan (“SIP”) Certification for the 2015 Ozone Transport or “Good Neighbor” provision.

1. Sections 110(a)(1) and 110(a)(2) of the federal Clean Air Act (“CAA”) require states to submit an infrastructure SIP to the United States Environmental Protection Agency (“EPA”) that provides for the implementation, maintenance and enforcement of new or revised National Ambient Air Quality Standards (“NAAQS”), including any new legally enforceable mechanisms that may be necessary.

2. If the existing state regulatory framework and resources are already sufficient to prevent a violation of the NAAQS without the need for new legally enforceable mechanisms, a state may instead submit an infrastructure SIP "certification" to EPA.

3. On October 1, 2015, EPA promulgated a revised NAAQS for Ozone. 80 Fed. Reg. 65291, October 26, 2015.

4. Based on EPA’s modeling data and the department’s analyses, New Mexico will not significantly contribute to downwind nonattainment or maintenance difficulties at any air

quality monitoring station in the United States for purposes of compliance with the Good Neighbor obligations under the 2015 Ozone NAAQS in 2023. Therefore, New Mexico's current SIP sufficiently addresses the necessary provisions and a substantive SIP revision or regulatory change is not needed.

5. The Department therefore developed the attached proposed SIP Certification for Ozone Transport (Attachment 1 to this petition), and hereby submits it to the Board for its consideration and approval. NMSA 1978, §§ 74-2-5 (2007).

6. Normally, a public hearing would not be required for a SIP certification, since the certification does not constitute a regulatory change or a request for the Board to adopt an emission control requirement. See NMSA 1978, § 74-2-6, requiring a public hearing where a regulation or emission control requirement shall be adopted.

7. However, the Department received a request for hearing from Wild Earth Guardians during the public comment period for this SIP certification, and therefore the Department requests to schedule a public hearing. 40 C.F.R. § 51.102(a) and NMSA 1978, § 74-2-6.

8. A Statement of Reasons is included with this petition as Attachment 2.

9. The Department requests a hearing at the regular May, 2021 EIB meeting, and estimates that four hours would be required for the hearing.

Respectfully submitted,

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New Mexico's Good Neighbor State Implementation Plan Certification for the 2015 Ozone NAAQS

I: Introduction

A State Implementation Plan (SIP) identifies how the state will attain and maintain the primary and secondary National Ambient Air Quality Standards (NAAQS). The SIP contains regulations, source-specific requirements, non-regulatory items such as plans and inventories, and in some cases additional requirements to satisfy regulations promulgated by the U.S. Environmental Protection Agency (EPA). The initial SIPs for states were approved by EPA on May 31, 1972 ([37 FR 10842](#)). A state may revise its SIP with EPA approval, as necessary. The federally enforceable SIP for New Mexico is compiled in [40 CFR Part 52 Subpart GG](#).

Sections 110(a)(1) and 110(a)(2) of the federal Clean Air Act (CAA) require states to submit an infrastructure SIP to the EPA that provides for the implementation, maintenance and enforcement of new or revised NAAQS, including any new legally enforceable mechanisms that may be necessary. If the existing state regulatory framework and resources are already sufficient without the need for new legally enforceable mechanisms, the state may instead submit an infrastructure SIP "certification."

This SIP certification for New Mexico addresses the requirements of section 110(a)(2)(D)(i)(I) of the federal CAA, demonstrating that New Mexico and Albuquerque - Bernalillo County comply with interstate transport obligations in regard to the revised 8-hour Ozone (O₃) NAAQS promulgated by EPA on October 1, 2015 ([80 FR 65291](#), October 26, 2015). A SIP that addresses the requirements of section 110(a)(2)(D)(i)(I) is also referred to as a "good neighbor" SIP. The New Mexico Environment Department (NMED) and the City of Albuquerque Environmental Health Department (EHD) addressed the other requirements of Sections 110(a)(1) and 110(a)(2), including Section 110(a)(2)(D)(i)(II), in separate submissions to EPA.

The analysis submitted with this good neighbor SIP fulfills New Mexico's obligation to address interstate transport by demonstrating that New Mexico does not cause or contribute to nonattainment or interfere with maintenance of the 2015 O₃ NAAQS in any other state. These elements, referred to as prong 1 and prong 2 of the good neighbor provisions, respectively, must be evaluated independently when assessing downwind air quality problems ([North Carolina v. EPA](#), 531 F.3d 896, 909-911, 2008).

Because the City of Albuquerque and Bernalillo County are a separate, combined jurisdiction from the rest of New Mexico for air quality regulatory purposes, NMED and EHD are responsible for separate submittals to EPA for the 2015 O₃ NAAQS good neighbor requirements. While these are separate submittals, NMED worked closely with EHD during their development and applied a common analytical framework addressing the entire state.

Legislative authority for New Mexico's air quality program is codified in [Chapter 74](#) (Environmental Improvement) of the New Mexico Statutes Annotated 1978 (NMSA 1978), which gives the State Environmental Improvement Board and NMED the authority to implement the CAA in New Mexico. The authority to implement air quality programs under state statutes is contained in the New Mexico Administrative Code (NMAC), specifically Title 20, [Chapter 2](#) - Air Quality (Statewide). These regulations are part of the approved New Mexico SIP and cited in [40 CFR Part 52.1620\(c\)](#).

This SIP certification document relies upon EPA [memoranda and supporting materials](#), including photochemical modeling of nationwide O₃ transport. They include EPA memoranda issued on March 27, 2018, August 31, 2018, and October 19, 2018, as well as supplemental information that describes in detail how photochemical modeling accounted for emissions of O₃ precursors, changes in those emissions over time, O₃ formation based on seasonal variability in meteorology, and the presence of existing and future legally enforceable emission control measures. Unless otherwise noted, this documentation is the basis for the analytical framework and data presented below in tables, charts, and discussion of New Mexico's good neighbor obligations under section 110(a)(2)(D)(i)(I) of the CAA.

Implementation of the 2015 O₃ NAAQS

The EPA sets NAAQS to protect public health (primary standards) and the environment (secondary standards) for six principle pollutants, referred to as "criteria" air pollutants, based on scientific evidence of the pollutant's impacts on public health and welfare. The 2015 O₃ NAAQS is based on eight-hour averages of O₃ concentrations with a level of 0.070 parts per million (ppm) or 70 parts per billion (ppb). For clarity and ease of use, all subsequent discussion will use ppb as the unit of measurement for O₃. Based on these averages, air quality agencies calculate an O₃ design value (DV), which is used to determine compliance with the level of the standard. Areas that do not meet the standard may be designated as nonattainment and are required to develop SIPs to improve air quality. The EPA completed area designations for the 2015 O₃ NAAQS on August 3, 2018, through a separate state submittal and regulatory action ([83 FR 25776](#), June 4, 2018). For a complete, detailed explanation of the standard, calculation methods used to determine compliance, and the designation process, see EPA's [2015 O₃ NAAQS website](#).

II: EPA's Analytical Framework for Ozone Transport

Through previous rulemakings, including the Cross State Air Pollution Rule ([CSAPR](#)) for the [1997 O₃ NAAQS](#) and the CSAPR Update for the [2008 O₃ NAAQS](#), EPA worked with states to develop the following four-step framework to address the requirements of the good neighbor provision for the O₃ NAAQS: 1.) identify potential downwind air quality problems at air quality monitoring sites (EPA refers to sites showing potential problems as "receptors"); 2.) identify upwind states that contribute to potential downwind air quality problems; 3.) identify emissions reductions

needed to prevent downwind problems; and 4.) adopt permanent and enforceable emission reductions.

National modeling conducted by EPA may be used to assist states in developing good neighbor SIPs by providing data to address steps 1 and 2 to identify each state's good neighbor obligation. On March 27, 2018 EPA provided such assistance for the 2015 O₃ NAAQS, via modeling data and a guidance [memorandum](#) for use in preparing good neighbor SIP submissions. EPA provided further memoranda and supporting data in [August](#) and [October](#) 2018.

EPA used 2023 as the analytic year for the modeling analyses (using a 2011 base year emissions inventory and meteorology), considering that 2023 aligns with the anticipated attainment year for Moderate O₃ nonattainment areas and allows for timeframes that may be required for implementing further emissions reductions. The EPA modeling analysis identified ambient air quality monitoring sites that are projected to have air quality problems attaining or maintaining the NAAQS in 2023.

The EPA memorandum issued on March 27, 2018 identified nonattainment receptors at 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. Further, the memo identified maintenance receptors as those monitoring sites with maximum design values exceeding the NAAQS. This included sites with current measured values below the NAAQS with projected average and maximum design values exceeding the NAAQS, and monitoring sites with projected average design values below the NAAQS but with projected maximum design values exceeding the NAAQS.

For consistency, this SIP certification will refer to air quality monitors with potential future O₃ air quality issues as nonattainment and maintenance "receptors."

After identifying nonattainment and maintenance receptors, EPA used the Anthropogenic Precursor Culpability Analysis (APCA) approach to quantify contributions of anthropogenic nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions to O₃ formation in downwind states. In their modeling analysis, EPA identified "links" between upwind state's contributions to downwind receptor sites with future design values greater than or equal to 70 ppb. In past rulemakings (e.g., the CSAPR Update Rule), EPA considered 1% of the NAAQS, or 0.70 ppb in this case, a potentially significant contribution to nonattainment or interference with maintenance.

However, the CSAPR Closeout Final Rule applied to eastern states of the United States, and EPA never developed a parallel rule for specifically analyzing and addressing O₃ transport in the western United States. In the eastern United States, electric generating units are the primary contributors to downwind O₃ air quality problems due to their close geographic proximity to one another. In the western United States, by contrast, long distances separate sources with high mountains and drastic elevation changes, hindering regional concentrations of ozone and

its precursors. This widely varying topography does not support a single, all-encompassing approach to ozone transport. Thus, upwind western states contributions' to linked receptors require additional analysis beyond the 1% of the NAAQS threshold to determine the significance of transported pollution in downwind states.

EPA recommends that a case-specific analysis of good neighbor requirements for an upwind western state focus on the factors that contribute to attainment or maintenance issues in a downwind state, specifically, whether the driving factor is emissions from upwind states or from sources within the downwind state itself. EPA applied this approach in approving Arizona's good neighbor SIP for the 2008 O₃ NAAQS ([81 FR 15201](#), March 22, 2016 and [81 FR 31513](#), May 16, 2016).

In this case, EPA's modeling linked Arizona, using the 1% of the NAAQS threshold to two receptors in California. However, in their approval of the SIP, EPA noted that the attainment issues at the California receptors were not primarily a result of small O₃ contributions from numerous upwind states. The analysis demonstrated that contributions from California sources far outweighed contributions to O₃ concentrations by Arizona, as well as all other upwind states combined. Thus, EPA concluded that Arizona met its good neighbor obligations and its contribution to downwind air quality, although greater than 1% of the NAAQS, was not significant at these receptors. NMED used this approach to demonstrate that New Mexico fulfills its good neighbor obligations under the CAA and does not contribute to nonattainment or interfere with maintenance of the 2015 O₃ NAAQS in another state.

III: EPA Modeling Results: Good Neighbor Requirements for the 2015 Ozone NAAQS

The EPA photochemical modeling described in their March 27, 2018 [memorandum](#) estimated New Mexico's contributions to O₃ measurements at every ambient air quality monitor in the 48 contiguous United States. The EPA identified two receptors linked to emissions originating in New Mexico at a contribution threshold of 0.70 ppb or above. These two receptors (Table 1) are within the Denver Metro/North Front Range O₃ nonattainment area (Denver/NFR NAA).

Table 1. Monitored and Projected Design Values of receptors linked to New Mexico emissions in ppb.

Receptor	AQS ID	2015-2017 DV	2023 Avg DV	2023 Max DV	NM Contribution
Weld County Tower	081230009	70	70.2	71.4	0.77
Rocky Flats-N	080590006	77	71.3	73.7	0.70

EPA identified the Rocky Flats-N site as a nonattainment receptor based on 2014-2016 monitoring data that measured above the 2015 O₃ NAAQS and is projected to remain in nonattainment in 2023. The Weld County Tower site is recognized as a maintenance receptor because 2014-2016 monitoring data and the 2023 Projected Average Design Value shows attainment of the 2015 O₃ NAAQS, but the 2023 Projected Maximum Design Value is above the standard. Based on EPA's identification of these receptors and the modeled linkage to New

Mexico emissions, NMED conducted further analysis to determine whether those emissions warrant consideration of new emissions control measures within the state.

The remainder of this SIP certification evaluates the available modeling, monitoring, and emissions data provided through EPA [memoranda](#), [technical support documents](#), the [Air Quality System Data Mart](#), and the [National Emissions Inventory](#) (NEI) to determine if New Mexico contributes significantly to nonattainment or interferes with maintenance in the Denver/NFR NAA. NMED concludes that emissions reductions within the state are not necessary to prevent downwind air quality problems, as discussed below.

IV: New Mexico’s Modeled Ozone Emissions Contribution at Colorado Receptors, Topography, Monitoring Data, and Emission Trends

To determine if New Mexico emissions contribute significantly to nonattainment or interfere with maintenance at receptors in Colorado, NMED used a weight-of-evidence approach. Adopting EPA's approach in the above-discussed Arizona SIP approval, NMED focused on the magnitude of emissions from within Colorado compared to emissions from upwind states, the complex topography and the unique meteorology that drives O₃ formation in the Denver/NFR NAA. The disparity between Colorado’s and linked state’s emission contributions highlights the contrast between western and eastern states’ O₃ transport challenges. Whereas, nonattainment receptors in eastern states are often linked to numerous upwind states with the home state accounting for a smaller percentage of the contribution, nonattainment receptors in the west are linked to a relatively small number of states (e.g., five) with small contributions compared to the home state. The resulting analysis demonstrates that Colorado emissions, rather than upwind state emissions, were in fact the primary driver of attainment issues at the Denver/NFR NAA.

Upwind State vs. In-state Contributions to Ozone Formation in Colorado

Table 2, below, presents EPA's modeled 2023 O₃ contribution from each upwind state to the two Colorado receptors of concern, including linked upwind states that meet the 1% threshold. For the Weld County Tower site, three states meet this threshold: California, New Mexico, and Texas. For the Rocky Flats-N receptor, five states meet this threshold: California, New Mexico, Texas, Utah, and Wyoming. Note that Colorado's contributions to each receptor (highlighted in red) far exceed the contribution of any other state. For the Weld County Tower and Rocky Flats-N receptors, Colorado’s contribution (~25 ppb) is greater than 30 times larger than New Mexico’s contribution (<1 ppb).

Table 2. Projected 2023 O₃ design values and upwind contributions at two Colorado receptors in ppb

Receptor	2023 Avg DV	2023 Max DV	CO	CA	NM	TX	UT	WY
Weld County Tower	70.2	71.4	24.44	0.95	0.77	1.05	0.54	0.58
Rocky Flats-N	71.3	73.7	25.52	1.32	0.70	1.02	0.83	0.81

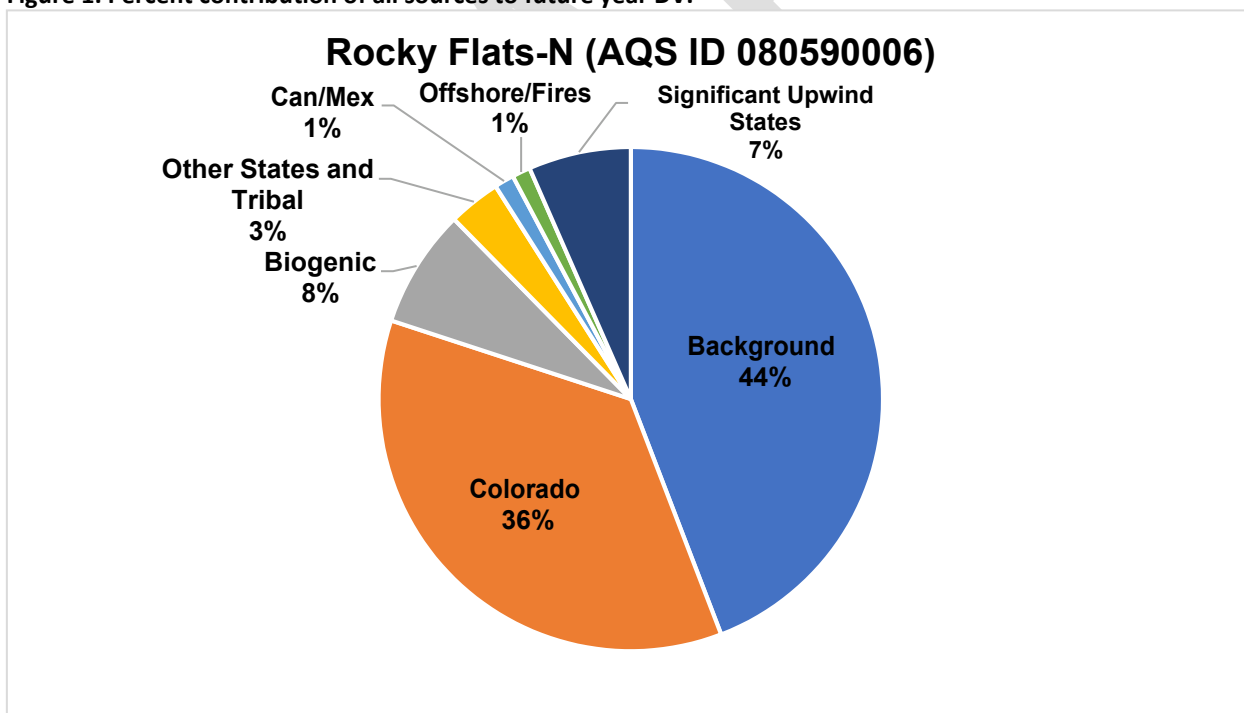
Table 3, below, consolidates the above data into broader categories, showing the collective contribution for modeled year 2023 by upwind states at the two receptors. Contributions from Colorado emissions far outweigh contributions from the 1% states. This information supports the argument that contributions from the upwind 1% states are not expected to become a significant contributor to O₃ attainment issues at the two Colorado receptors.

Table 3. 2023 contributions to projected average DV from Colorado and upwind states in ppb.

Receptor	2023 Ave DV	CO	All Upwind States	Linked Upwind States	NM
Weld County Tower	70.2	24.44	5.63	2.77	0.77
Rocky Flats-N	71.3	25.52	7.06	4.68	0.70

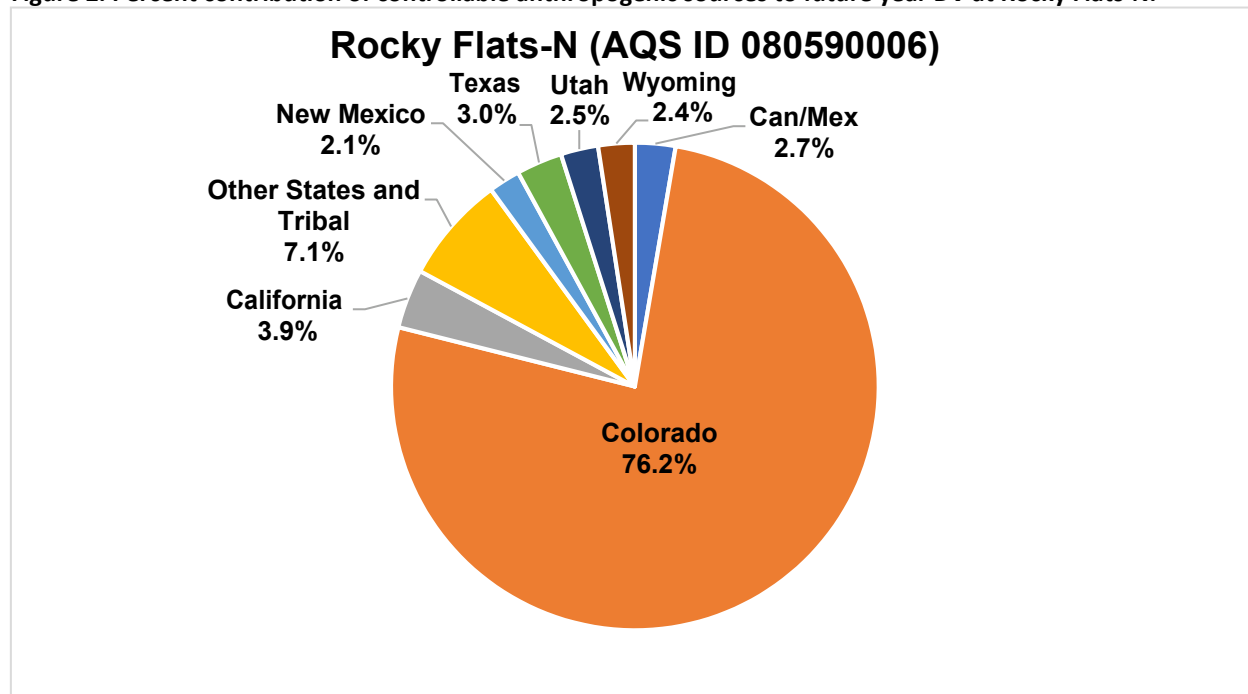
At the Rocky Flats-N receptor, EPA identifies background concentrations (44%) and anthropogenic emissions from Colorado (36%) as contributing to nearly 80% of modeled future year design values, with 7% of contributions attributed to linked upwind states and 3% attributed to the remainder of upwind states and tribes (Figure 1). Colorado’s emissions account for approximately three and a half times the contribution to the future year design value as all other states combined and nearly five and a half times as much as linked states.

Figure 1. Percent contribution of all sources to future year DV.



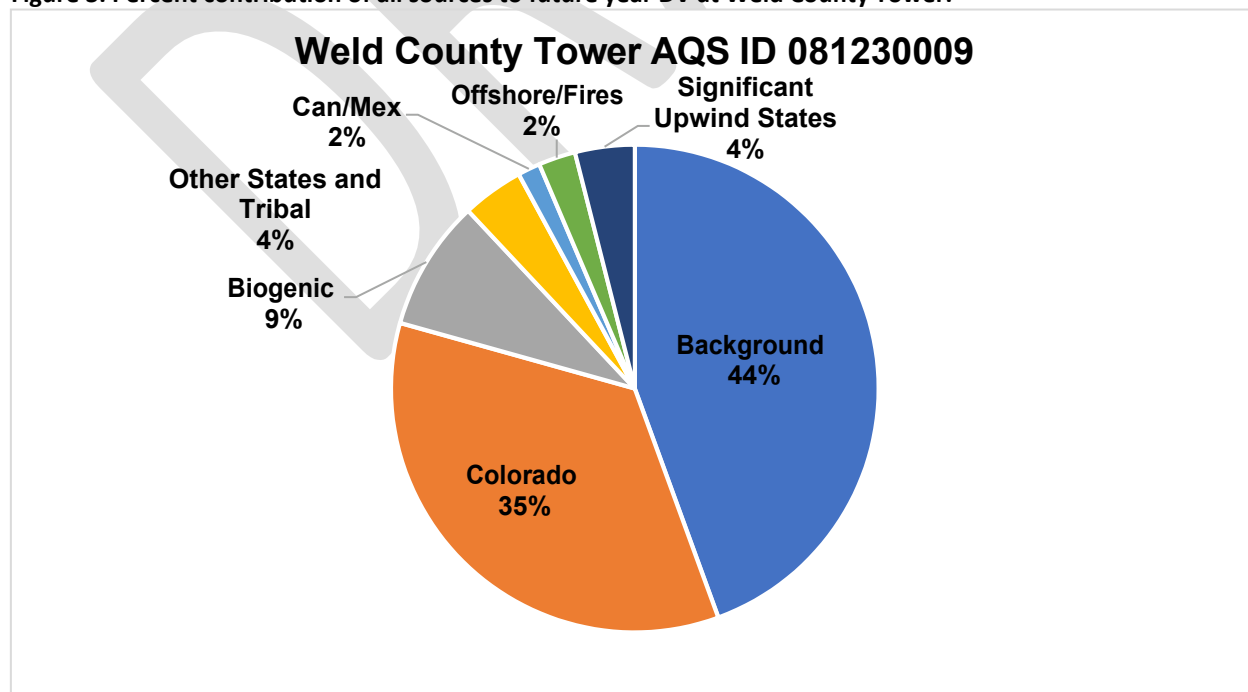
When considering controllable anthropogenic emissions and removing background, offshore, fire and biogenic emissions from consideration (Figure 2), Colorado alone contributes over 75% to the projected DV. The five linked upwind states individually contribute from 2 to 4%, with other states contributing about 7%, and international emissions from Canada and Mexico contributing about 3% to the future year DV.

Figure 2. Percent contribution of controllable anthropogenic sources to future year DV at Rocky Flats-N.



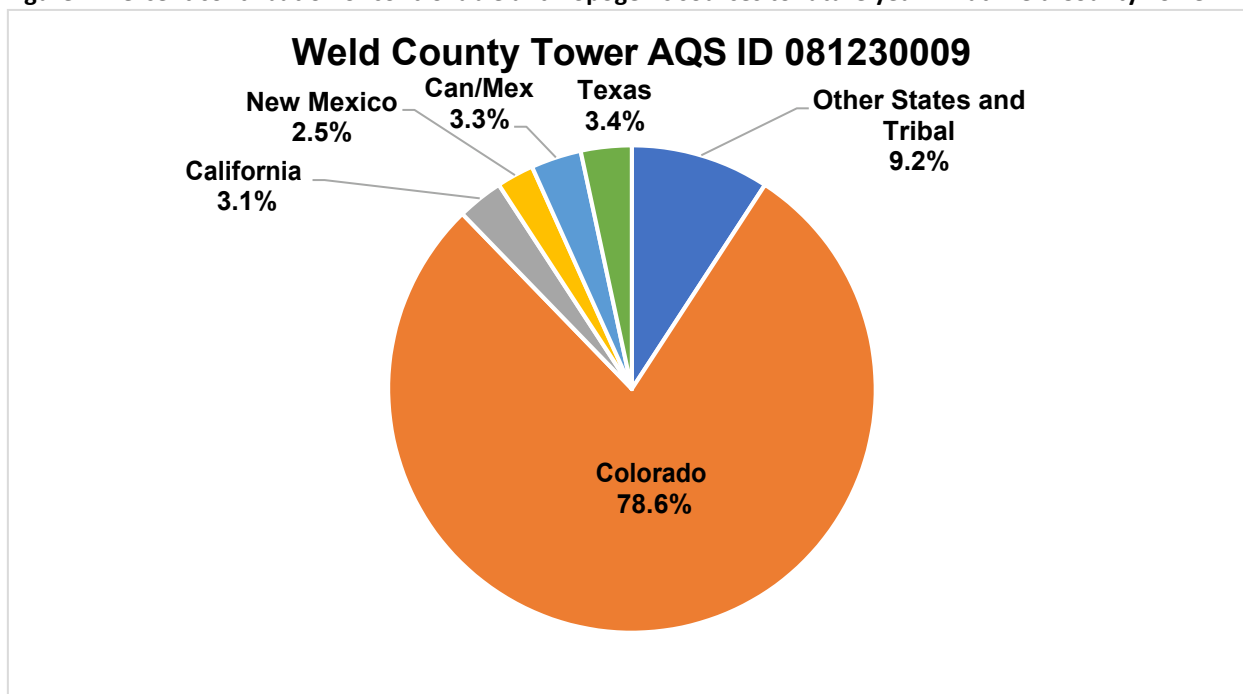
At the Weld County Tower receptor, EPA identifies background concentrations (44%) and anthropogenic emissions from Colorado (35%) contributing to approximately 79% of modeled future year design values, with 8% of contributions attributed to upwind states and tribes (Figure 3). Colorado’s emissions account for greater than four times the contribution to the future year design value as all other states combined.

Figure 3. Percent contribution of all sources to future year DV at Weld County Tower.



When background, offshore, fire and biogenic emissions are removed from consideration (Figure 4), Colorado alone contributes approximately 79%, with the linked states of California, Texas and New Mexico individually contributing 3.4%, 3.1%, and 2.5%, respectively. For the remaining anthropogenic emissions from North America, other states contribute 9% and emissions from Canada and Mexico contribute 3.3% to the future year DV. Similar to the Rocky Flats-N receptor, Colorado' emissions far outweigh emissions from any other state.

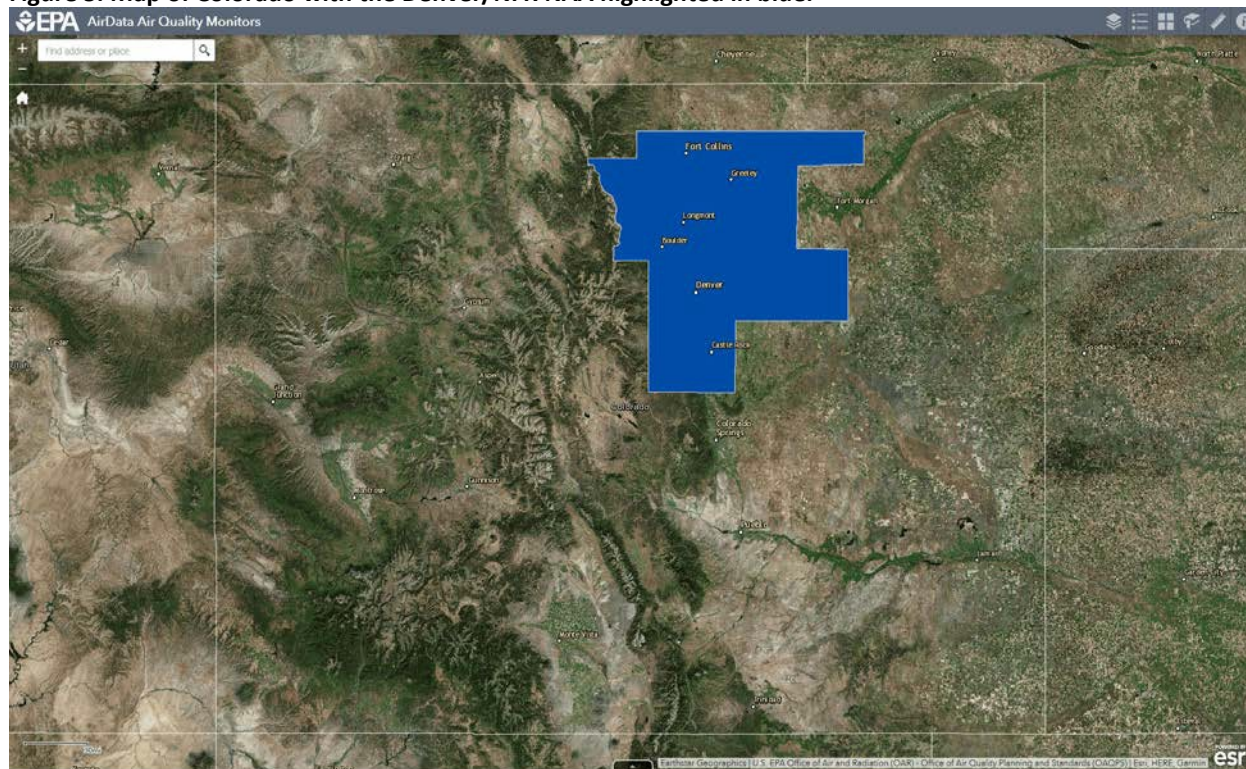
Figure 4. Percent contribution of controllable anthropogenic sources to future year DV at Weld County Tower.



Nonattainment History and Topography of the Denver/North Front Range Area

EPA designated the Denver/NFR area as nonattainment for the 1997 ([72 FR 5392](#), September 21, 2007), 2008 ([77 FR 30087](#), May 21, 2012) and 2015 8-hour O₃ NAAQS ([83 FR 25776](#), June 4, 2018). The Denver/NFR NAA includes seven entire counties and two partial counties surrounding Denver (Figure 5). This area has a history of elevated O₃ levels and was reclassified as “Serious” nonattainment under the 2008 standard ([84 FR 41674](#), Aug. 15, 2019).

Figure 5. Map of Colorado with the Denver/NFR NAA highlighted in blue.



In the process of making the nonattainment designation for the 2015 NAAQS, the State of Colorado provided a five-factor analysis to determine an appropriate boundary for the Denver/NFR recommended nonattainment area. This analysis concluded that unique topography and meteorological conditions in and around Denver, tend to "magnify and constrain the influence of local emissions on air quality" resulting in elevated O₃ levels. Emissions within the air basin tend to recirculate within the area, making them a significant cause of O₃ formation. EPA agreed with Colorado's conclusions in the agency's Technical Support Document for designating the Denver/NFR area nonattainment for the 2015 O₃ NAAQS without expanding the existing boundary ([EPA-HQ-OAR-2017-0548-0408](#), 2017).

Both EPA and Colorado agreed that the topography, comprised of mountains and ridges in the Denver/Front Range region serve as a bowl that traps local NO_x and VOC emissions during the May through September O₃ season. These topographical features include the Rocky Mountains to the west, the Cheyenne Ridge to the north, and the Palmer Divide to the south, walling off the Denver/NFR NAA on three sides. During warm weather months, these three barriers constrain airflow in a way that effectively creates an invisible, fourth wall to the east. These four walls trap local NO_x and VOC emissions during the O₃ season. Because of this topography, emissions from within the Denver/NFR NAA are the primary driver of O₃ formation. EPA and Colorado based this assessment on measurements of prevailing airflow patterns and on modeling of airflow patterns around monitors violating the 2015 O₃ NAAQS.

EPA performed HYSPLIT back trajectory modeling of airflow patterns at four monitoring sites on all days with an exceedance of the O₃ NAAQS. Colorado further focused their modeling on the four highest exceedance days and combined the results of their frequency analysis. The results found fewer than 5 trajectory hours outside of the Denver/NFR NAA boundary during these periods of elevated O₃ levels.

In describing the meteorological effects responsible for this, Colorado and EPA identified four circulation patterns that affect O₃ levels within the Denver/NFR NAA as:

- nighttime and early-morning down-valley drainage flow;
- thermally-driven upslope flow;
- mountain-plains solenoid circulation; and
- the “Denver Cyclone.”

These air circulation patterns and the surface topography of the NAA trap emissions and produce O₃ within the air basin. These patterns compound the problem as prior day emissions recirculate to form O₃ that is carried west up the slopes of the Rocky Mountains during the day, returning the polluted air to surface as lofted air recirculates to the east as temperatures subside in the evening and nighttime hours. The “Denver Cyclone” is a separate meteorological phenomena that independently creates a circulation pattern that impacts localized pollution transport due to mesoscale winds ([EPA-HQ-OAR-2017-0548-0408](#), 2017).

Thus, EPA’s and Colorado’s assessments demonstrate that topography and related wind patterns in the Denver/NFR NAA cause local emissions to build up in the area, resulting in significant locally driven O₃ formation due to physical conditions within the NAA boundaries. Although the Colorado and EPA assessments did not assess interstate transport of O₃ and its precursors, the assessments do provide further evidence of the significance of local conditions in Colorado driving O₃ formation within the NAA.

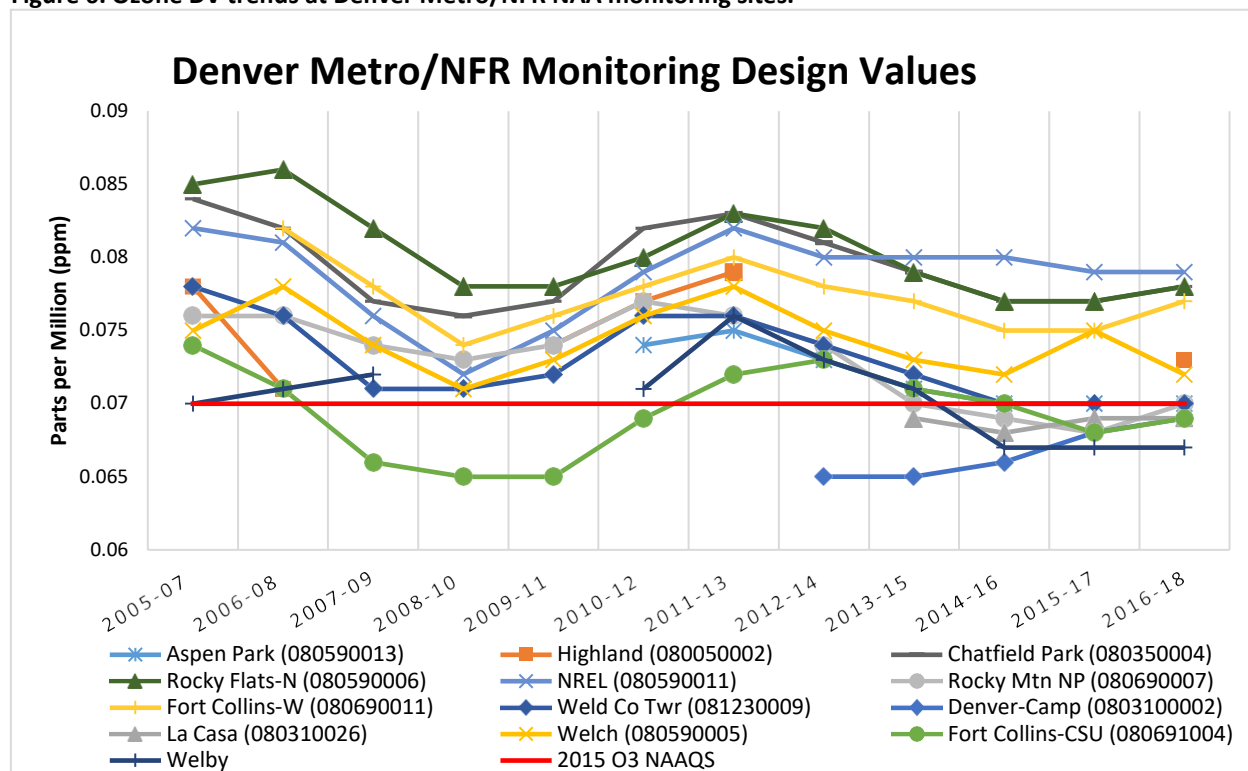
Air Quality Monitoring Data and Design Values

To further understand the significance and potential impact of New Mexico emissions on the two Colorado receptors, this certification examines trends in monitored O₃ concentrations within the Denver/NFR NAA. Doing so provides additional context for assessing the O₃ modeling performed by EPA.

Of the 14 monitoring sites in the Denver/NFR NAA, six recorded O₃ data above the level of the 2015 O₃ NAAQS in 2018. Although EPA designated the area as nonattainment of the 2015 O₃ NAAQS, trends in measured concentrations of O₃ show a decrease in concentration at the two receptors of concern, the Weld County Tower and Rocky Flats-N receptors. In recent years the O₃ design values for these receptors show an overall downward trend in design values since 2013 (Figure 6). The design value at Rocky Flats-N dropped from 86 ppb in 2008 to 78 ppb in

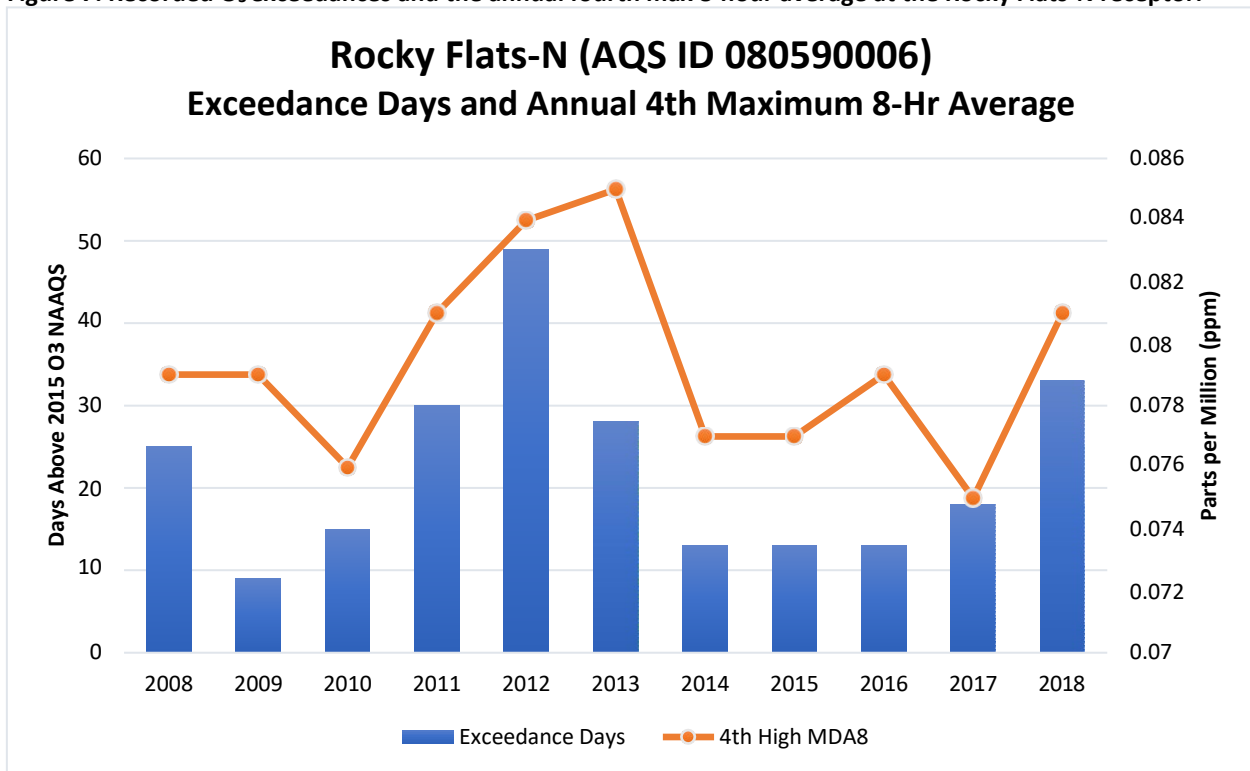
2018. The Weld County Tower design value shows a similar improvement, dropping from 76 ppb in 2013 to 70 ppb in 2016 where it has remained steady through 2018.

Figure 6. Ozone DV trends at Denver Metro/NFR NAA monitoring sites.



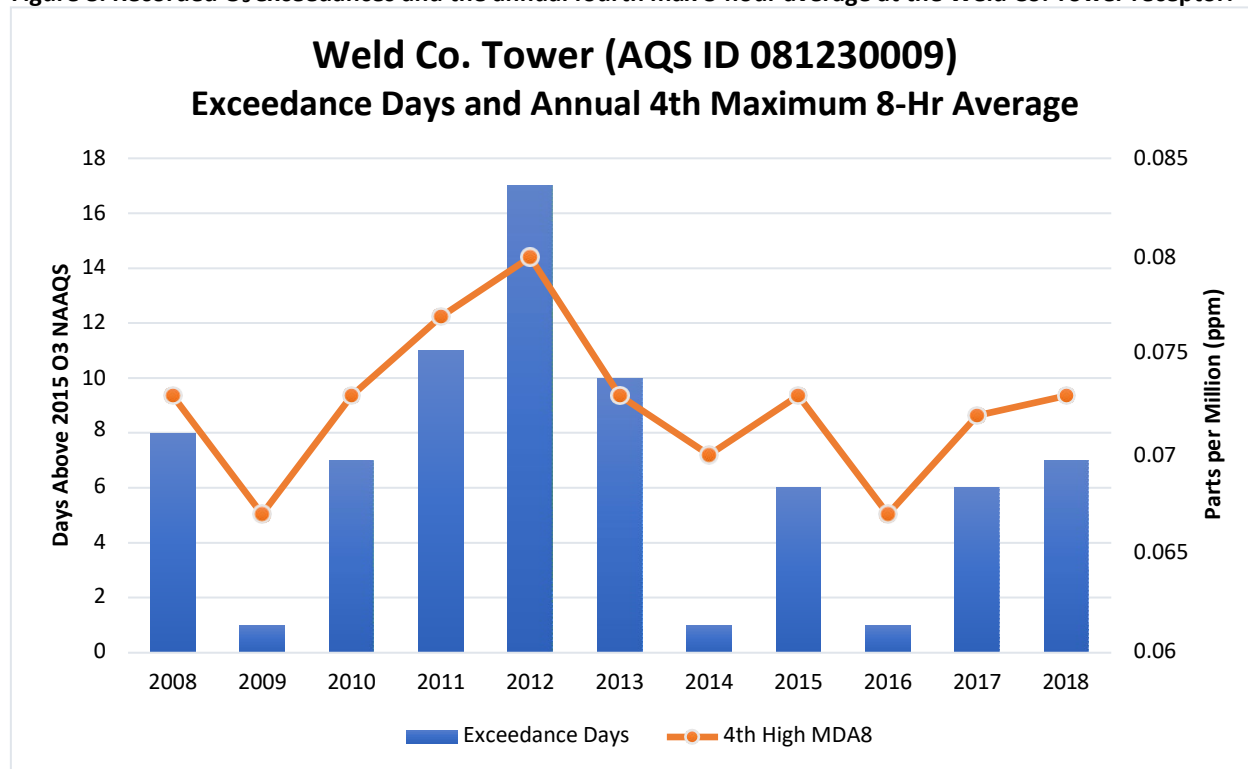
The Rocky Flats-N receptor shows improvement over time not only in overall design values but in frequency of NAAQS exceedances, as illustrated in Figure 7. In 2012, this receptor measured a peak of forty-nine days with a recorded NAAQS exceedance, along with a fourth maximum 8-hour O₃ average of 84 ppb. By 2017, the number of days with an exceedance fell to 18, with a fourth maximum 8-hour O₃ average of 75 ppb. In 2018 the receptor recorded an uptick in concentrations with the number of exceedance days increasing to 33 and the fourth maximum 8-hour O₃ average increasing to 81 ppb. This resulted in the slight increase in the DV at the receptor from 77 ppb in 2017 to 78 ppb in 2018.

Figure 7. Recorded O₃ exceedances and the annual fourth max 8-hour average at the Rocky Flats-N receptor.



The Weld County Tower receptor exhibits a similar O₃ concentration pattern. Its design values show a downward trend over time, with the receptor meeting the O₃ NAAQS since 2016. In addition, this receptor records fewer exceedance days than the Rocky Flats-N receptor (Figure 8). In 2012, the receptor recorded a peak of seventeen exceedance days and an annual fourth maximum 8-hour average of 80 ppb. By 2018 the number of exceedance days dropped to 7 with an annual fourth maximum 8-hour average of 73 ppb. Currently, the Weld County Tower receptor shows attainment of the standard with a design value of 70 ppb using the most recent publicly available data from 2016-2018.

Figure 8. Recorded O₃ exceedances and the annual fourth max 8-hour average at the Weld Co. Tower receptor.



These trends in monitoring data reinforce the assertion that New Mexico's small modeled contribution to O₃ concentrations in the Denver/NFR NAA does not interfere with maintenance or contribute to nonattainment of the 2015 O₃ NAAQS.

Nitrogen Oxides and Volatile Organic Compounds Emissions Trends

To further understand the potential impact of New Mexico emissions on the two receptors, this certification examines trends in O₃ precursor emissions in Colorado and upwind states. Doing so will help provide additional context for assessing the O₃ modeling performed by EPA and the significance of emissions from New Mexico.

O₃ forms in the atmosphere from complex chemical reactions of NO_x and VOCs in the presence of sunlight. Since O₃ formation depends on these chemicals, they are collectively referred to as precursor emissions. Control strategies to reduce O₃ pollution generally rely on emission reductions of one or both categories of precursor emissions.

In addition to New Mexico, the states of Utah, Wyoming, California and Texas have been linked to the Weld County or Rocky Flats-N receptors, as discussed above. However, a review of emission trends for those states shows no indication of substantial, consistent increases over time in upwind O₃ precursor emissions within these states. The magnitude of the emissions from California and Texas compared to the other states necessitate separate figures and scales, to distinguish trends easily.

In all of the linked upwind states and Colorado, NOx emissions have declined steadily since 2002, as estimated in the [NEI](#) as shown in Figures 9 and 10, below.

Figure 9. Fifteen-year trend of NOx emissions in New Mexico, Colorado, Utah and Wyoming.

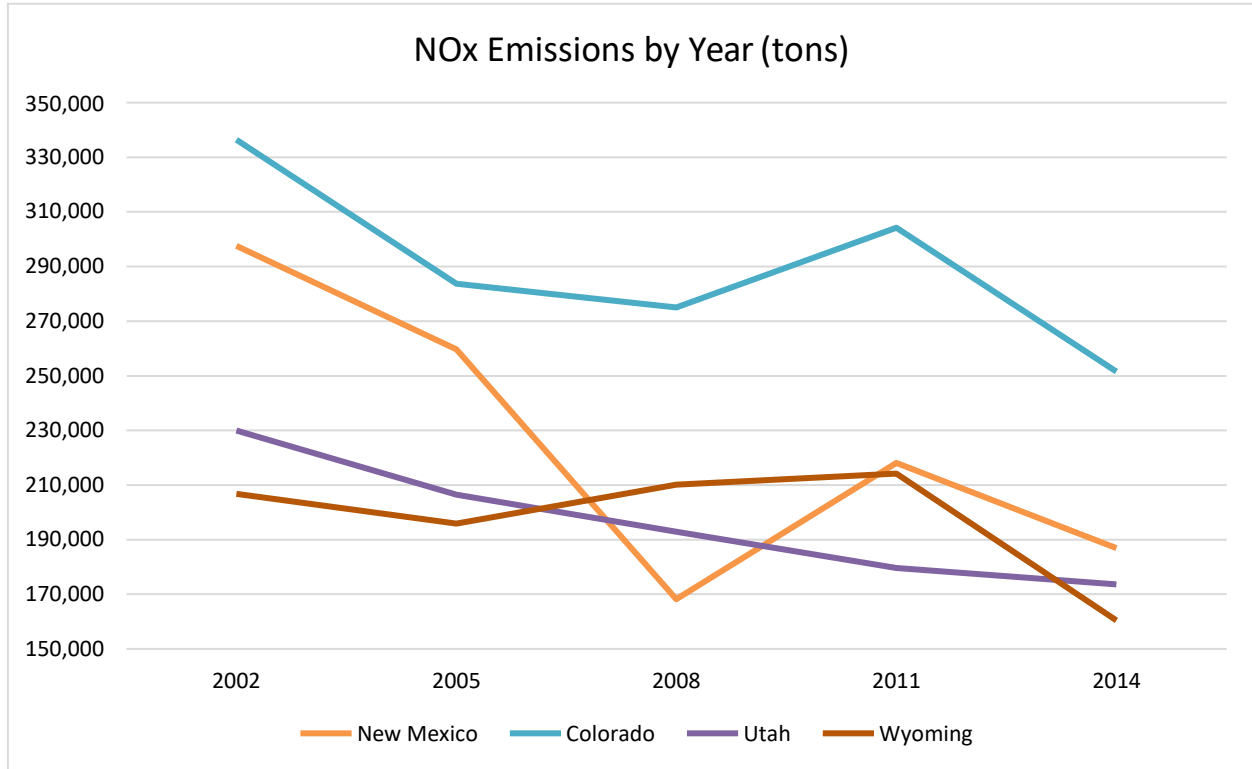
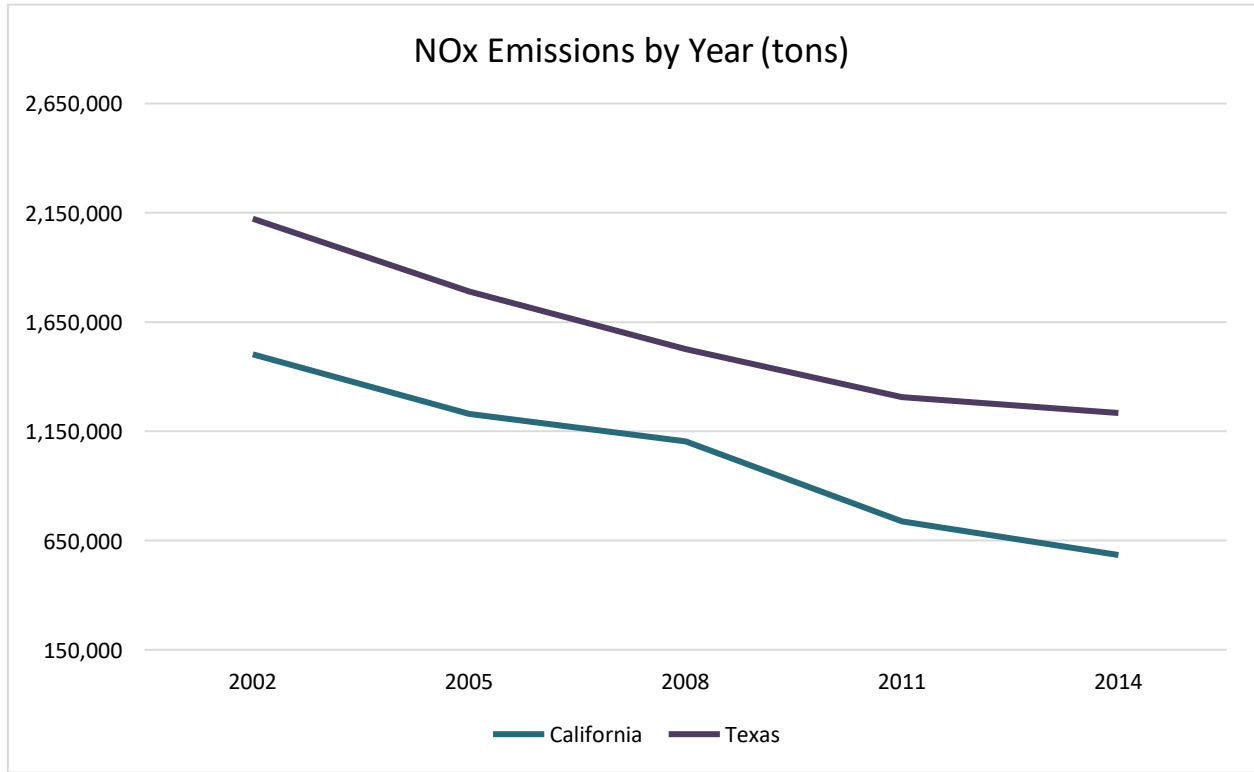


Figure 10. Fifteen-year trend of NOx emissions in California and Texas



VOC emissions in the upwind states and Colorado do not display the same steady downward trend as NOx, but neither do they suggest a dramatic trend upward. VOC emissions from the [NEI](#) since 2002 show variability over time in upwind states and Colorado (Figures 11 and 12).

Figure 11. Fifteen-year trend of VOC emissions in New Mexico, Colorado, Utah and Wyoming.

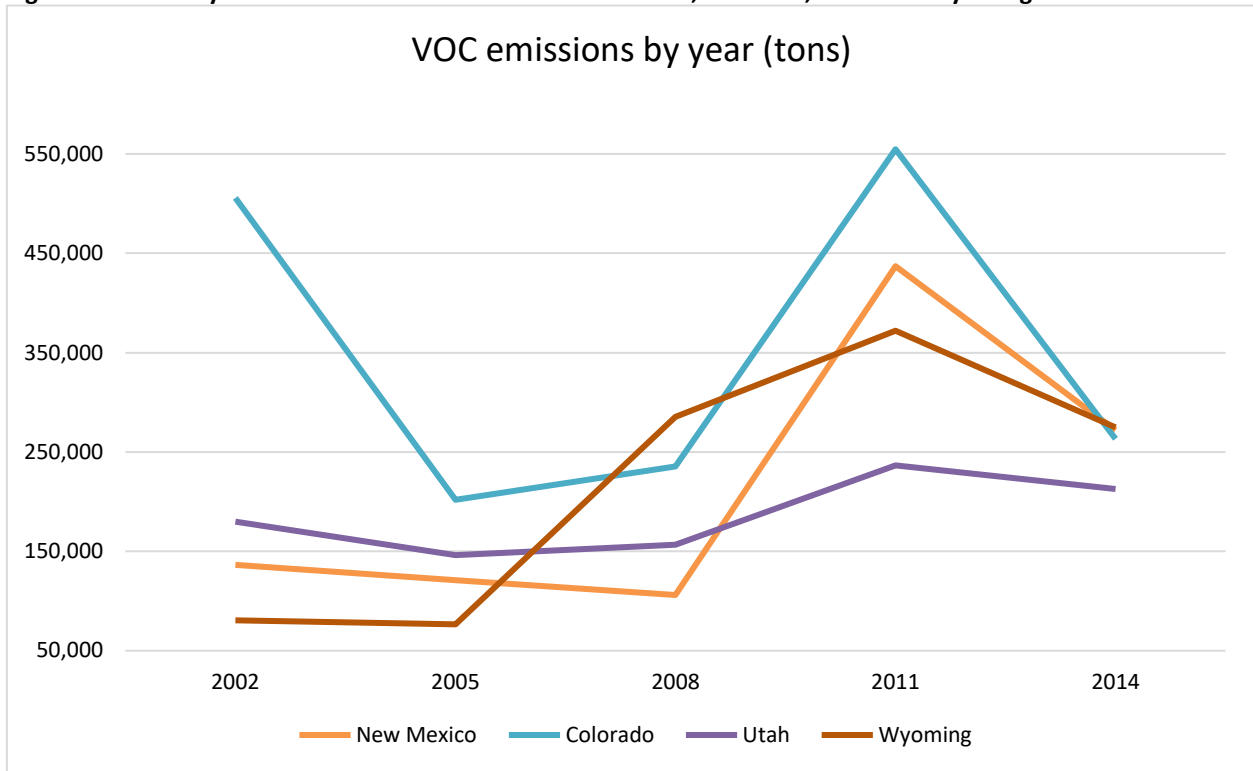
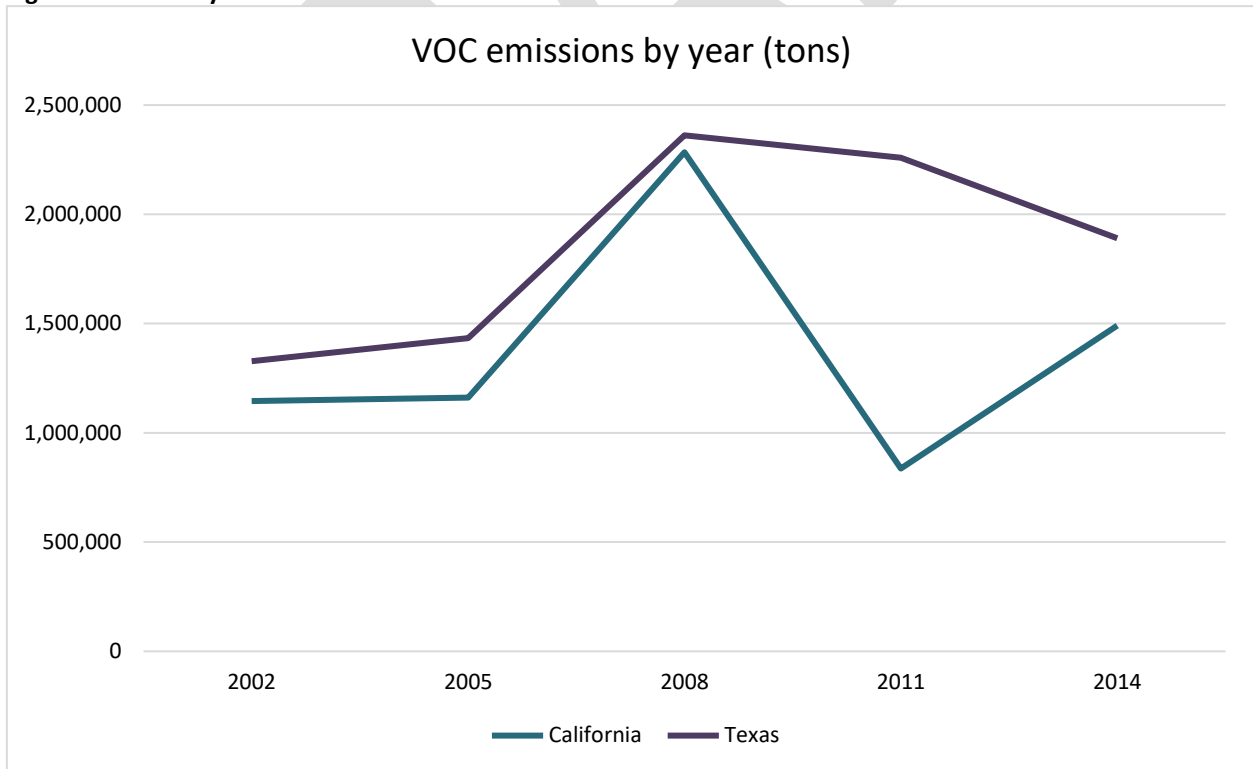


Figure 12. Fifteen-year trend of VOC emissions in California and Texas.



V: Conclusion

This good neighbor SIP demonstrates that New Mexico's emissions do not contribute significantly to nonattainment or interfere with maintenance at the two Colorado receptors examined above. New Mexico's modeled 2023 contribution for these locations is projected to be at or slightly above 1% of the 2015 O₃ NAAQS. However, the contributions of Colorado emissions at these two receptors are projected to substantially outweigh the contributions of all upwind states.

In approving previous good neighbor SIP submissions under the 2008 O₃ NAAQS, EPA found linked upwind states' contributions did not significantly contribute to nonattainment or interfere with maintenance ([81 FR 31513](#), May 19, 2016). In that case, contributions from all upwind states combined were heavily outweighed by emissions contributions from within the receptors' home state.

Emissions in New Mexico are expected to continue to decrease in the future as the state implements federal rules as well as state initiatives to attain and maintain the 2015 O₃ NAAQS within its jurisdiction. In addition, the hypothetical scenario of removing all emissions from New Mexico, would result in an air quality improvement of only 1% at each receptor and within the Denver/NFR NAA as a whole.

Thus, the weight of evidence provided in this submittal demonstrates that emissions from New Mexico do not significantly impact the linked receptors in Colorado and the State meets its good neighbor obligations under the 2015 O₃ NAAQS.

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

**IN THE MATTER OF:
CERTIFICATION FOR THE 2015 OZONE NAAQS
TRANSPORT OR “GOOD NEIGHBOR” PROVISION
OF THE STATE IMPLEMENTATION PLAN**

No. EIB 21- (R)

STATEMENT OF REASONS

1. The Clean Air Act (“CAA”) requires New Mexico to adopt and submit a plan for the implementation, maintenance, and enforcement of primary and secondary National Ambient Air Quality Standards (“NAAQS”) to the U.S. Environmental Protection Agency (“EPA”). 42 U.S.C § 7410(a).

2. The state implementation plan (“SIP”) must include an enforcement program, emission limitations, and control measures. 42 U.S.C § 7410(a)(2)(C).

3. EPA reviews and approves SIP submittals pursuant to the CAA. 42 U.S.C § 7410(k).

4. If New Mexico fails to submit a SIP or the SIP fails to satisfy minimum criteria, EPA may promulgate a federal implementation plan (“FIP”). 42 U.S.C § 7410(c).

5. Under CAA Sections 110(a)(1) and (2), each state is required to submit an infrastructure SIP (“iSIP”) that provides for the implementation, maintenance and enforcement of each primary or secondary NAAQS within three years after promulgation of a new or revised NAAQS. 42 U.S.C § 7410(a)(1).

6. The purpose of an iSIP is to ensure that the state’s SIP contains the necessary structural requirements for the implementation of the new or revised NAAQS, whether by

certifying that the SIP already contains or sufficiently addresses the necessary provisions, or by making a substantive SIP revisions to update the SIP.

7. CAA Section 110(a)(2)(D)(i)(I) is often referred to as the “Good Neighbor Provision” and to SIP revisions addressing this requirement as “Good Neighbor SIPs”. It requires that each state’s SIP prohibit emissions that will significantly contribute to nonattainment of a NAAQS (“Prong 1”), or interfere with maintenance of a NAAQS (“Prong 2”), in a downwind state. 42 U.S.C. § 7410(a)(2)(D)(i)(I).

8. On October 1, 2015, EPA promulgated a revised NAAQS for Ozone. 80 Fed. Reg. 65291, October 26, 2015.

9. Section 110(a)(2) of the CAA requires states to submit to the EPA Administrator an iSIP that addresses the requirements of sections 110(a)(2)(A)-(M) of the CAA within three years after the promulgation of a new or revised NAAQS. This SIP is a compilation of elements that demonstrates how the State of New Mexico will implement, maintain and enforce the revised ozone NAAQS.

10. Based on EPA guidance, New Mexico did not address the 110(a)(2)(D)(i)(I) or Good Neighbor Provision requirements in the iSIP for the 2015 ozone NAAQS.

11. The New Mexico Environment Department (“Department”) submitted the iSIP certification for the 2015 ozone NAAQS to EPA on November 1, 2018, which was approved on October 18, 2019. No public comments or hearing requests were received regarding this matter during the EPA required 30-day public comment period. 84 Fed. Reg. 49057, September 18, 2019.

12. On December 5, 2019, the EPA issued a final action, “Findings of Failure to Submit a Clean Air Act Section 110 State Implementation Plan for Interstate Transport for the 2015 Ozone National Ambient Air Quality Standards (NAAQS)”, effective January 6, 2020, which identified

seven states, including New Mexico, that failed to submit iSIPs to satisfy certain interstate transport requirements of the CAA. These requirements pertain to significant contribution to nonattainment, or interference with maintenance, of the 2015 8-hour ozone NAAQS in other states. 84 Fed. Reg. 66612, December 5, 2019.

13. These findings of failure to submit establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (“FIP”) to address the interstate transport SIP requirements, unless, prior to the EPA promulgating a FIP, the state submits, and the EPA approves, a SIP that meets these requirements.

14. Prior to submitting a SIP revision, New Mexico must provide reasonable notice and public hearing. 42 U.S.C. §7410 (1).

15. The Department develops and presents the proposed SIP to the New Mexico Environmental Improvement Board (“Board”) for its consideration and approval. NMSA 1978, §§ 74-2-5 (2007).

16. A public hearing must be held by the Board in cases where a regulation or emission control requirement shall be adopted. A regulation includes any amendment or repeal thereof. NMSA 1978, § 74-2-6.

17. EPA released modeling data in 2017 assessing whether or not a state’s emissions of ozone precursors might violate the Good Neighbor provision for the 2015 ozone NAAQS in a downwind state. Additionally, EPA issued two memos in 2018 providing states guidance on interpreting and analyzing the modeling data in the context of the Good Neighbor provision.

18. Based on EPA’s modeling data and the department’s analyses, New Mexico will not significantly contribute to downwind nonattainment or maintenance difficulties at any air quality monitoring station in the United States for purposes of compliance with the Good Neighbor

obligations under the 2015 ozone NAAQS in 2023. Therefore, New Mexico's SIP sufficiently addresses the necessary provisions and a substantive SIP revision or regulatory change is not needed.

19. Since the Department is not seeking a regulatory change or requesting the Board to adopt an emission control requirement, a public hearing is not automatically required. However, the Department received a request for hearing during the public comment period for this SIP, therefore the department requested to schedule a public hearing. 40 C.F.R. § 51.102(a).

20. The Department proposes that the Board approve its Good Neighbor SIP certification for the 2015 ozone NAAQS, to satisfy the requirements of the CAA.

secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.

(C) Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

(July 14, 1955, ch. 360, title I, § 109, as added Pub. L. 91–604, § 4(a), Dec. 31, 1970, 84 Stat. 1679; amended Pub. L. 95–95, title I, § 106, Aug. 7, 1977, 91 Stat. 691.)

CODIFICATION

Section was formerly classified to section 1857c–4 of this title.

PRIOR PROVISIONS

A prior section 109 of act July 14, 1955, was renumbered section 116 by Pub. L. 91–604 and is classified to section 7416 of this title.

AMENDMENTS

1977—Subsec. (c). Pub. L. 95–95, § 106(b), added subsec. (c).

Subsec. (d). Pub. L. 95–95, § 106(a), added subsec. (d).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

ROLE OF SECONDARY STANDARDS

Pub. L. 101–549, title VIII, § 817, Nov. 15, 1990, 104 Stat. 2697, provided that:

“(a) REPORT.—The Administrator shall request the National Academy of Sciences to prepare a report to the Congress on the role of national secondary ambient air quality standards in protecting welfare and the environment. The report shall:

“(1) include information on the effects on welfare and the environment which are caused by ambient concentrations of pollutants listed pursuant to section 108 [42 U.S.C. 7408] and other pollutants which may be listed;

“(2) estimate welfare and environmental costs incurred as a result of such effects;

“(3) examine the role of secondary standards and the State implementation planning process in preventing such effects;

“(4) determine ambient concentrations of each such pollutant which would be adequate to protect welfare and the environment from such effects;

“(5) estimate the costs and other impacts of meeting secondary standards; and

“(6) consider other means consistent with the goals and objectives of the Clean Air Act [42 U.S.C. 7401 et seq.] which may be more effective than secondary standards in preventing or mitigating such effects.

“(b) SUBMISSION TO CONGRESS; COMMENTS; AUTHORIZATION.—(1) The report shall be transmitted to the Congress not later than 3 years after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990].

“(2) At least 90 days before issuing a report the Administrator shall provide an opportunity for public comment on the proposed report. The Administrator shall include in the final report a summary of the comments received on the proposed report.

“(3) There are authorized to be appropriated such sums as are necessary to carry out this section.”

§ 7410. State implementation plans for national primary and secondary ambient air quality standards

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems

(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

(2) Each implementation plan submitted by a State under this chapter shall be adopted by the

State after reasonable notice and public hearing. Each such plan shall—

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter;

(B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to—

(i) monitor, compile, and analyze data on ambient air quality, and

(ii) upon request, make such data available to the Administrator;

(C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;

(D) contain adequate provisions—

(i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or

(II) 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 or to protect visibility,

(ii) insuring compliance with the applicable requirements of sections 7426 and 7415 of this title (relating to interstate and international pollution abatement);

(E) provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under section 7428 of this title, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

(F) require, as may be prescribed by the Administrator—

(i) the installation, maintenance, and replacement of equipment, and the implementa-

tion of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,

(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and

(iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection;

(G) provide for authority comparable to that in section 7603 of this title and adequate contingency plans to implement such authority;

(H) provide for revision of such plan—

(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and

(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this chapter;

(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);

(J) meet the applicable requirements of section 7421 of this title (relating to consultation), section 7427 of this title (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection);

(K) provide for—

(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;

(L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover—

(i) the reasonable costs of reviewing and acting upon any application for such a permit, and

(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under subchapter V; and

(M) provide for consultation and participation by local political subdivisions affected by the plan.

(3)(A) Repealed. Pub. L. 101-549, title I, § 101(d)(1), Nov. 15, 1990, 104 Stat. 2409.

(B) As soon as practicable, the Administrator shall, consistent with the purposes of this chapter and the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C. 791 et seq.], review each State's applicable implementation plans and report to the State on whether such plans can be revised in relation to fuel burning stationary sources (or persons supplying fuel to such sources) without interfering with the attainment and maintenance of any national ambient air quality standard within the period permitted in this section. If the Administrator determines that any such plan can be revised, he shall notify the State that a plan revision may be submitted by the State. Any plan revision which is submitted by the State shall, after public notice and opportunity for public hearing, be approved by the Administrator if the revision relates only to fuel burning stationary sources (or persons supplying fuel to such sources), and the plan as revised complies with paragraph (2) of this subsection. The Administrator shall approve or disapprove any revision no later than three months after its submission.

(C) Neither the State, in the case of a plan (or portion thereof) approved under this subsection, nor the Administrator, in the case of a plan (or portion thereof) promulgated under subsection (c), shall be required to revise an applicable implementation plan because one or more exemptions under section 7418 of this title (relating to Federal facilities), enforcement orders under section 7413(d)¹ of this title, suspensions under subsection (f) or (g) (relating to temporary energy or economic authority), orders under section 7419 of this title (relating to primary nonferrous smelters), or extensions of compliance in decrees entered under section 7413(e)¹ of this title (relating to iron- and steel-producing operations) have been granted, if such plan would have met the requirements of this section if no such exemptions, orders, or extensions had been granted.

(4) Repealed. Pub. L. 101-549, title I, § 101(d)(2), Nov. 15, 1990, 104 Stat. 2409.

(5)(A)(i) Any State may include in a State implementation plan, but the Administrator may not require as a condition of approval of such plan under this section, any indirect source review program. The Administrator may approve and enforce, as part of an applicable implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan.

(ii) Except as provided in subparagraph (B), no plan promulgated by the Administrator shall include any indirect source review program for any air quality control region, or portion thereof.

(iii) Any State may revise an applicable implementation plan approved under this subsection to suspend or revoke any such program included in such plan, provided that such plan meets the requirements of this section.

(B) The Administrator shall have the authority to promulgate, implement and enforce regulations under subsection (c) respecting indirect

source review programs which apply only to federally assisted highways, airports, and other major federally assisted indirect sources and federally owned or operated indirect sources.

(C) For purposes of this paragraph, the term "indirect source" means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. Such term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply (within the meaning of subsection (c)(2)(D)(ii)), including regulation of existing off-street parking but such term does not include new or existing on-street parking. Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose of this paragraph.

(D) For purposes of this paragraph the term "indirect source review program" means the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations—

(i) exceeding any national primary ambient air quality standard for a mobile source-related air pollutant after the primary standard attainment date, or

(ii) preventing maintenance of any such standard after such date.

(E) For purposes of this paragraph and paragraph (2)(B), the term "transportation control measure" does not include any measure which is an "indirect source review program".

(6) No State plan shall be treated as meeting the requirements of this section unless such plan provides that in the case of any source which uses a supplemental, or intermittent control system for purposes of meeting the requirements of an order under section 7413(d)¹ of this title or section 7419 of this title (relating to primary nonferrous smelter orders), the owner or operator of such source may not temporarily reduce the pay of any employee by reason of the use of such supplemental or intermittent or other dispersion dependent control system.

(b) Extension of period for submission of plans

The Administrator may, wherever he determines necessary, extend the period for submission of any plan or portion thereof which implements a national secondary ambient air quality standard for a period not to exceed 18 months from the date otherwise required for submission of such plan.

(c) Preparation and publication by Administrator of proposed regulations setting forth implementation plan; transportation regulations study and report; parking surcharge; suspension authority; plan implementation

(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator—

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not

¹ See References in Text note below.

satisfy the minimum criteria established under subsection (k)(1)(A), or

(B) disapproves a State implementation plan submission in whole or in part,

unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.

(2)(A) Repealed. Pub. L. 101-549, title I,

§ 101(d)(3)(A), Nov. 15, 1990, 104 Stat. 2409.

(B) No parking surcharge regulation may be required by the Administrator under paragraph (1) of this subsection as a part of an applicable implementation plan. All parking surcharge regulations previously required by the Administrator shall be void upon June 22, 1974. This subparagraph shall not prevent the Administrator from approving parking surcharges if they are adopted and submitted by a State as part of an applicable implementation plan. The Administrator may not condition approval of any implementation plan submitted by a State on such plan's including a parking surcharge regulation.

(C) Repealed. Pub. L. 101-549, title I,

§ 101(d)(3)(B), Nov. 15, 1990, 104 Stat. 2409.

(D) For purposes of this paragraph—

(i) The term "parking surcharge regulation" means a regulation imposing or requiring the imposition of any tax, surcharge, fee, or other charge on parking spaces, or any other area used for the temporary storage of motor vehicles.

(ii) The term "management of parking supply" shall include any requirement providing that any new facility containing a given number of parking spaces shall receive a permit or other prior approval, issuance of which is to be conditioned on air quality considerations.

(iii) The term "preferential bus/carpool lane" shall include any requirement for the setting aside of one or more lanes of a street or highway on a permanent or temporary basis for the exclusive use of buses or carpools, or both.

(E) No standard, plan, or requirement, relating to management of parking supply or preferential bus/carpool lanes shall be promulgated after June 22, 1974, by the Administrator pursuant to this section, unless such promulgation has been subjected to at least one public hearing which has been held in the area affected and for which reasonable notice has been given in such area. If substantial changes are made following public hearings, one or more additional hearings shall be held in such area after such notice.

(3) Upon application of the chief executive officer of any general purpose unit of local government, if the Administrator determines that such unit has adequate authority under State or local law, the Administrator may delegate to such unit the authority to implement and enforce within the jurisdiction of such unit any part of a plan promulgated under this subsection. Nothing in this paragraph shall prevent the Administrator from implementing or enforcing any applicable provision of a plan promulgated under this subsection.

(4) Repealed. Pub. L. 101-549, title I, § 101(d)(3)(C), Nov. 15, 1990, 104 Stat. 2409.

(5)(A) Any measure in an applicable implementation plan which requires a toll or other charge

for the use of a bridge located entirely within one city shall be eliminated from such plan by the Administrator upon application by the Governor of the State, which application shall include a certification by the Governor that he will revise such plan in accordance with subparagraph (B).

(B) In the case of any applicable implementation plan with respect to which a measure has been eliminated under subparagraph (A), such plan shall, not later than one year after August 7, 1977, be revised to include comprehensive measures to:

(i) establish, expand, or improve public transportation measures to meet basic transportation needs, as expeditiously as is practicable; and

(ii) implement transportation control measures necessary to attain and maintain national ambient air quality standards,

and such revised plan shall, for the purpose of implementing such comprehensive public transportation measures, include requirements to use (insofar as is necessary) Federal grants, State or local funds, or any combination of such grants and funds as may be consistent with the terms of the legislation providing such grants and funds. Such measures shall, as a substitute for the tolls or charges eliminated under subparagraph (A), provide for emissions reductions equivalent to the reductions which may reasonably be expected to be achieved through the use of the tolls or charges eliminated.

(C) Any revision of an implementation plan for purposes of meeting the requirements of subparagraph (B) shall be submitted in coordination with any plan revision required under part D.

(d) , (e) Repealed. Pub. L. 101-549, title I, § 101(d)(4), (5), Nov. 15, 1990, 104 Stat. 2409

(f) National or regional energy emergencies; determination by President

(1) Upon application by the owner or operator of a fuel burning stationary source, and after notice and opportunity for public hearing, the Governor of the State in which such source is located may petition the President to determine that a national or regional energy emergency exists of such severity that—

(A) a temporary suspension of any part of the applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) may be necessary, and

(B) other means of responding to the energy emergency may be inadequate.

Such determination shall not be delegable by the President to any other person. If the President determines that a national or regional energy emergency of such severity exists, a temporary emergency suspension of any part of an applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) adopted by the State may be issued by the Governor of any State covered by the President's determination under the condition specified in paragraph (2) and may take effect immediately.

(2) A temporary emergency suspension under this subsection shall be issued to a source only if the Governor of such State finds that—

(A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and

(B) such unemployment or loss can be totally or partially alleviated by such emergency suspension.

Not more than one such suspension may be issued for any source on the basis of the same set of circumstances or on the basis of the same emergency.

(3) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator, if any. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of paragraph (2).

(4) This subsection shall not apply in the case of a plan provision or requirement promulgated by the Administrator under subsection (c) of this section, but in any such case the President may grant a temporary emergency suspension for a four month period of any such provision or requirement if he makes the determinations and findings specified in paragraphs (1) and (2).

(5) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c-10¹ of this title, as in effect before August 7, 1977, or section 7413(d)¹ of this title, upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(g) Governor's authority to issue temporary emergency suspensions

(1) In the case of any State which has adopted and submitted to the Administrator a proposed plan revision which the State determines—

(A) meets the requirements of this section, and

(B) is necessary (i) to prevent the closing for one year or more of any source of air pollution, and (ii) to prevent substantial increases in unemployment which would result from such closing, and

which the Administrator has not approved or disapproved under this section within 12 months of submission of the proposed plan revision, the Governor may issue a temporary emergency suspension of the part of the applicable implementation plan for such State which is proposed to be revised with respect to such source. The determination under subparagraph (B) may not be made with respect to a source which would close without regard to whether or not the proposed plan revision is approved.

(2) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator. The Administrator may disapprove such suspension if

he determines that it does not meet the requirements of this subsection.

(3) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c-10¹ of this title as in effect before August 7, 1977, or under section 7413(d)¹ of this title upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(h) Publication of comprehensive document for each State setting forth requirements of applicable implementation plan

(1) Not later than 5 years after November 15, 1990, and every 3 years thereafter, the Administrator shall assemble and publish a comprehensive document for each State setting forth all requirements of the applicable implementation plan for such State and shall publish notice in the Federal Register of the availability of such documents.

(2) The Administrator may promulgate such regulations as may be reasonably necessary to carry out the purpose of this subsection.

(i) Modification of requirements prohibited

Except for a primary nonferrous smelter order under section 7419 of this title, a suspension under subsection (f) or (g) (relating to emergency suspensions), an exemption under section 7418 of this title (relating to certain Federal facilities), an order under section 7413(d)¹ of this title (relating to compliance orders), a plan promulgation under subsection (c), or a plan revision under subsection (a)(3); no order, suspension, plan revision, or other action modifying any requirement of an applicable implementation plan may be taken with respect to any stationary source by the State or by the Administrator.

(j) Technological systems of continuous emission reduction on new or modified stationary sources; compliance with performance standards

As a condition for issuance of any permit required under this subchapter, the owner or operator of each new or modified stationary source which is required to obtain such a permit must show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is to be used at such source will enable it to comply with the standards of performance which are to apply to such source and that the construction or modification and operation of such source will be in compliance with all other requirements of this chapter.

(k) Environmental Protection Agency action on plan submissions

(1) Completeness of plan submissions

(A) Completeness criteria

Within 9 months after November 15, 1990, the Administrator shall promulgate minimum criteria that any plan submission must meet before the Administrator is required to

act on such submission under this subsection. The criteria shall be limited to the information necessary to enable the Administrator to determine whether the plan submission complies with the provisions of this chapter.

(B) Completeness finding

Within 60 days of the Administrator's receipt of a plan or plan revision, but no later than 6 months after the date, if any, by which a State is required to submit the plan or revision, the Administrator shall determine whether the minimum criteria established pursuant to subparagraph (A) have been met. Any plan or plan revision that a State submits to the Administrator, and that has not been determined by the Administrator (by the date 6 months after receipt of the submission) to have failed to meet the minimum criteria established pursuant to subparagraph (A), shall on that date be deemed by operation of law to meet such minimum criteria.

(C) Effect of finding of incompleteness

Where the Administrator determines that a plan submission (or part thereof) does not meet the minimum criteria established pursuant to subparagraph (A), the State shall be treated as not having made the submission (or, in the Administrator's discretion, part thereof).

(2) Deadline for action

Within 12 months of a determination by the Administrator (or a determination deemed by operation of law) under paragraph (1) that a State has submitted a plan or plan revision (or, in the Administrator's discretion, part thereof) that meets the minimum criteria established pursuant to paragraph (1), if applicable (or, if those criteria are not applicable, within 12 months of submission of the plan or revision), the Administrator shall act on the submission in accordance with paragraph (3).

(3) Full and partial approval and disapproval

In the case of any submittal on which the Administrator is required to act under paragraph (2), the Administrator shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part. The plan revision shall not be treated as meeting the requirements of this chapter until the Administrator approves the entire plan revision as complying with the applicable requirements of this chapter.

(4) Conditional approval

The Administrator may approve a plan revision based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision. Any such conditional approval shall be treated as a disapproval if the State fails to comply with such commitment.

(5) Calls for plan revisions

Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the inter-state pollutant transport described in section 7506a of this title or section 7511c of this title, or to otherwise comply with any requirement of this chapter, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies. The Administrator shall notify the State of the inadequacies, and may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions. Such findings and notice shall be public. Any finding under this paragraph shall, to the extent the Administrator deems appropriate, subject the State to the requirements of this chapter to which the State was subject when it developed and submitted the plan for which such finding was made, except that the Administrator may adjust any dates applicable under such requirements as appropriate (except that the Administrator may not adjust any attainment date prescribed under part D, unless such date has elapsed).

(6) Corrections

Whenever the Administrator determines that the Administrator's action approving, disapproving, or promulgating any plan or plan revision (or part thereof), area designation, redesignation, classification, or reclassification was in error, the Administrator may in the same manner as the approval, disapproval, or promulgation revise such action as appropriate without requiring any further submission from the State. Such determination and the basis thereof shall be provided to the State and public.

(l) Plan revisions

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

(m) Sanctions

The Administrator may apply any of the sanctions listed in section 7509(b) of this title at any time (or at any time after) the Administrator makes a finding, disapproval, or determination under paragraphs (1) through (4), respectively, of section 7509(a) of this title in relation to any plan or plan item (as that term is defined by the Administrator) required under this chapter, with respect to any portion of the State the Administrator determines reasonable and appropriate, for the purpose of ensuring that the requirements of this chapter relating to such plan or plan item are met. The Administrator shall, by rule, establish criteria for exercising his authority under the previous sentence with respect to any deficiency referred to in section 7509(a) of

this title to ensure that, during the 24-month period following the finding, disapproval, or determination referred to in section 7509(a) of this title, such sanctions are not applied on a statewide basis where one or more political subdivisions covered by the applicable implementation plan are principally responsible for such deficiency.

(n) Savings clauses

(1) Existing plan provisions

Any provision of any applicable implementation plan that was approved or promulgated by the Administrator pursuant to this section as in effect before November 15, 1990, shall remain in effect as part of such applicable implementation plan, except to the extent that a revision to such provision is approved or promulgated by the Administrator pursuant to this chapter.

(2) Attainment dates

For any area not designated nonattainment, any plan or plan revision submitted or required to be submitted by a State—

(A) in response to the promulgation or revision of a national primary ambient air quality standard in effect on November 15, 1990, or

(B) in response to a finding of substantial inadequacy under subsection (a)(2) (as in effect immediately before November 15, 1990),

shall provide for attainment of the national primary ambient air quality standards within 3 years of November 15, 1990, or within 5 years of issuance of such finding of substantial inadequacy, whichever is later.

(3) Retention of construction moratorium in certain areas

In the case of an area to which, immediately before November 15, 1990, the prohibition on construction or modification of major stationary sources prescribed in subsection (a)(2)(I) (as in effect immediately before November 15, 1990) applied by virtue of a finding of the Administrator that the State containing such area had not submitted an implementation plan meeting the requirements of section 7502(b)(6) of this title (relating to establishment of a permit program) (as in effect immediately before November 15, 1990) or 7502(a)(1) of this title (to the extent such requirements relate to provision for attainment of the primary national ambient air quality standard for sulfur oxides by December 31, 1982) as in effect immediately before November 15, 1990, no major stationary source of the relevant air pollutant or pollutants shall be constructed or modified in such area until the Administrator finds that the plan for such area meets the applicable requirements of section 7502(c)(5) of this title (relating to permit programs) or subpart 5 of part D (relating to attainment of the primary national ambient air quality standard for sulfur dioxide), respectively.

(o) Indian tribes

If an Indian tribe submits an implementation plan to the Administrator pursuant to section 7601(d) of this title, the plan shall be reviewed in accordance with the provisions for review set

forth in this section for State plans, except as otherwise provided by regulation promulgated pursuant to section 7601(d)(2) of this title. When such plan becomes effective in accordance with the regulations promulgated under section 7601(d) of this title, the plan shall become applicable to all areas (except as expressly provided otherwise in the plan) located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-way running through the reservation.

(p) Reports

Any State shall submit, according to such schedule as the Administrator may prescribe, such reports as the Administrator may require relating to emission reductions, vehicle miles traveled, congestion levels, and any other information the Administrator may deem necessary to assess the development² effectiveness, need for revision, or implementation of any plan or plan revision required under this chapter.

(July 14, 1955, ch. 360, title I, § 110, as added Pub. L. 91-604, § 4(a), Dec. 31, 1970, 84 Stat. 1680; amended Pub. L. 93-319, § 4, June 22, 1974, 88 Stat. 256; Pub. L. 95-95, title I, §§ 107, 108, Aug. 7, 1977, 91 Stat. 691, 693; Pub. L. 95-190, § 14(a)(1)-(6), Nov. 16, 1977, 91 Stat. 1399; Pub. L. 97-23, § 3, July 17, 1981, 95 Stat. 142; Pub. L. 101-549, title I, §§ 101(b)-(d), 102(h), 107(c), 108(d), title IV, § 412, Nov. 15, 1990, 104 Stat. 2404-2408, 2422, 2464, 2466, 2634.)

REFERENCES IN TEXT

The Energy Supply and Environmental Coordination Act of 1974, referred to in subsec. (a)(3)(B), is Pub. L. 93-319, June 22, 1974, 88 Stat. 246, as amended, which is classified principally to chapter 16C (§ 791 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 791 of Title 15 and Tables.

Section 7413 of this title, referred to in subsections. (a)(3)(C), (6), (f)(5), (g)(3), and (i), was amended generally by Pub. L. 101-549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsections. (d) and (e) of section 7413 no longer relates to final compliance orders and steel industry compliance extension, respectively.

Section 1857c-10 of this title, as in effect before August 7, 1977, referred to in subsections. (f)(5) and (g)(3), was in the original "section 119, as in effect before the date of the enactment of this paragraph", meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93-319, § 3, 88 Stat. 248, (which was classified to section 1857c-10 of this title) as in effect prior to the enactment of subsections. (f)(5) and (g)(3) of this section by Pub. L. 95-95, § 107, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95-95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93-319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93-319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to section 7413(d)(5) of this title. Section 7413 of this title was subsequently amended generally by Pub. L. 101-549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, see note above. Section 117(b) of Pub. L. 95-95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

CODIFICATION

Section was formerly classified to section 1857c-5 of this title.

²So in original. Probably should be followed by a comma.

PRIOR PROVISIONS

A prior section 110 of act July 14, 1955, was renumbered section 117 by Pub. L. 91-604 and is classified to section 7417 of this title.

AMENDMENTS

1990—Subsec. (a)(1). Pub. L. 101-549, § 101(d)(8), substituted “3 years (or such shorter period as the Administrator may prescribe)” for “nine months” in two places.

Subsec. (a)(2). Pub. L. 101-549, § 101(b), amended par. (2) generally, substituting present provisions for provisions setting the time within which the Administrator was to approve or disapprove a plan or portion thereof and listing the conditions under which the plan or portion thereof was to be approved after reasonable notice and hearing.

Subsec. (a)(3)(A). Pub. L. 101-549, § 101(d)(1), struck out subpar. (A) which directed Administrator to approve any revision of an implementation plan if it met certain requirements and had been adopted by the State after reasonable notice and public hearings.

Subsec. (a)(3)(D). Pub. L. 101-549, § 101(d)(1), struck out subpar. (D) which directed that certain implementation plans be revised to include comprehensive measures and requirements.

Subsec. (a)(4). Pub. L. 101-549, § 101(d)(2), struck out par. (4) which set forth requirements for review procedure.

Subsec. (c)(1). Pub. L. 101-549, § 102(h), amended par. (1) generally, substituting present provisions for provisions relating to preparation and publication of regulations setting forth an implementation plan, after opportunity for a hearing, upon failure of a State to make required submission or revision.

Subsec. (c)(2)(A). Pub. L. 101-549, § 101(d)(3)(A), struck out subpar. (A) which required a study and report on necessity of parking surcharge, management of parking supply, and preferential bus/carpool lane regulations to achieve and maintain national primary ambient air quality standards.

Subsec. (c)(2)(C). Pub. L. 101-549, § 101(d)(3)(B), struck out subpar. (C) which authorized suspension of certain regulations and requirements relating to management of parking supply.

Subsec. (c)(4). Pub. L. 101-549, § 101(d)(3)(C), struck out par. (4) which permitted Governors to temporarily suspend measures in implementation plans relating to retrofits, gas rationing, and reduction of on-street parking.

Subsec. (c)(5)(B). Pub. L. 101-549, § 101(d)(3)(D), struck out “(including the written evidence required by part D),” after “include comprehensive measures”.

Subsec. (d). Pub. L. 101-549, § 101(d)(4), struck out subsec. (d) which defined an applicable implementation plan for purposes of this chapter.

Subsec. (e). Pub. L. 101-549, § 101(d)(5), struck out subsec. (e) which permitted an extension of time for attainment of a national primary ambient air quality standard.

Subsec. (f)(1). Pub. L. 101-549, § 412, inserted “or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets)” in subpar. (A) and in last sentence.

Subsec. (g)(1). Pub. L. 101-549, § 101(d)(6), substituted “12 months of submission of the proposed plan revision” for “the required four month period” in closing provisions.

Subsec. (h)(1). Pub. L. 101-549, § 101(d)(7), substituted “5 years after November 15, 1990, and every three years thereafter” for “one year after August 7, 1977, and annually thereafter” and struck out at end “Each such document shall be revised as frequently as practicable but not less often than annually.”

Subsecs. (k) to (n). Pub. L. 101-549, § 101(c), added subsecs. (k) to (n).

Subsec. (o). Pub. L. 101-549, § 107(c), added subsec. (o).

Subsec. (p). Pub. L. 101-549, § 108(d), added subsec. (p).

1981—Subsec. (a)(3)(C). Pub. L. 97-23 inserted reference to extensions of compliance in decrees entered

under section 7413(e) of this title (relating to iron- and steel-producing operations).

1977—Subsec. (a)(2)(A). Pub. L. 95-95, § 108(a)(1), substituted “(A) except as may be provided in subparagraph (I)(i) in the case of a plan” for “(A)(i) in the case of a plan”.

Subsec. (a)(2)(B). Pub. L. 95-95, § 108(a)(2), substituted “transportation controls, air quality maintenance plans, and preconstruction review of direct sources of air pollution as provided in subparagraph (D)” for “land use and transportation controls”.

Subsec. (a)(2)(D). Pub. L. 95-95, § 108(a)(3), substituted “it includes a program to provide for the enforcement of emission limitations and regulation of the modification, construction, and operation of any stationary source, including a permit program as required in parts C and D and a permit or equivalent program for any major emitting facility, within such region as necessary to assure (i) that national ambient air quality standards are achieved and maintained, and (ii) a procedure” for “it includes a procedure”.

Subsec. (a)(2)(E). Pub. L. 95-95, § 108(a)(4), substituted “it contains adequate provisions (i) prohibiting any stationary source within the State from emitting any air pollutant in amounts which will (I) prevent attainment or maintenance by any other State of any such national primary or secondary ambient air quality standard, or (II) 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 or to protect visibility, and (ii) insuring compliance with the requirements of section 7426 of this title, relating to interstate pollution abatement” for “it contains adequate provisions for intergovernmental cooperation, including measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region”.

Subsec. (a)(2)(F). Pub. L. 95-95, § 108(a)(5), added cl. (vi).

Subsec. (a)(2)(H). Pub. L. 95-190, § 14(a)(1), substituted “1977;” for “1977”.

Pub. L. 95-95, § 108(a)(6), inserted “except as provided in paragraph (3)(C),” after “or (ii)” and “or to otherwise comply with any additional requirements established under the Clean Air Act Amendments of 1977” after “to achieve the national ambient air quality primary or secondary standard which it implements”.

Subsec. (a)(2)(I). Pub. L. 95-95, § 108(b), added subpar. (I).

Subsec. (a)(2)(J). Pub. L. 95-190, § 14(a)(2), substituted “; and” for “, and”.

Pub. L. 95-95, § 108(b), added subpar. (J).

Subsec. (a)(2)(K). Pub. L. 95-95, § 108(b) added subpar. (K).

Subsec. (a)(3)(C). Pub. L. 95-95, § 108(c), added subpar. (C).

Subsec. (a)(3)(D). Pub. L. 95-190, § 14(a)(4), added subpar. (D).

Subsec. (a)(5). Pub. L. 95-95, § 108(e), added par. (5).

Subsec. (a)(5)(D). Pub. L. 95-190, § 14(a)(3), struck out “preconstruction or premodification” before “review”.

Subsec. (a)(6). Pub. L. 95-95, § 108(e), added par. (6).

Subsec. (c)(1). Pub. L. 95-95, § 108(d)(1), (2), substituted “plan which meets the requirements of this section” for “plan for any national ambient air quality primary or secondary standard within the time prescribed” in subpar. (A) and, in provisions following subpar. (C), directed that any portion of a plan relating to any measure described in first sentence of 7421 of this title (relating to consultation) or the consultation process required under such section 7421 of this title not be required to be promulgated before the date eight months after such date required for submission.

Subsec. (c)(3) to (5). Pub. L. 95-95, § 108(d)(3), added pars. (3) to (5).

Subsec. (d). Pub. L. 95-95, § 108(f), substituted “and which implements the requirements of this section” for

“and which implements a national primary or secondary ambient air quality standard in a State”.

Subsec. (f). Pub. L. 95-95, § 107(a), substituted provisions relating to the handling of national or regional energy emergencies for provisions relating to the postponement of compliance by stationary sources or classes of moving sources with any requirement of applicable implementation plans.

Subsec. (g). Pub. L. 95-95, § 108(g), added subsec. (g) relating to publication of comprehensive document.

Pub. L. 95-95, § 107(b), added subsec. (g) relating to Governor's authority to issue temporary emergency suspensions.

Subsec. (h). Pub. L. 95-190, § 14(a)(5), redesignated subsec. (g), added by Pub. L. 95-95, § 108(g), as (h). Former subsec. (h) redesignated (i).

Subsec. (i). Pub. L. 95-190, § 14(a)(5), redesignated subsec. (h), added by Pub. L. 95-95, § 108(g), as (i). Former subsec. (i) redesignated (j) and amended.

Subsec. (j). Pub. L. 95-190 § 14(a)(5), (6), redesignated subsec. (i), added by Pub. L. 95-95, § 108(g), as (j) and in subsec. (j) as so redesignated, substituted “will enable such source” for “at such source will enable it”.

1974—Subsec. (a)(3). Pub. L. 93-319, § 4(a), designated existing provisions as subpar. (A) and added subpar. (B).

Subsec. (c). Pub. L. 93-319, § 4(b), designated existing provisions as par. (1) and existing pars. (1), (2), and (3) as subpars. (A), (B), and (C), respectively, of such redesignated par. (1), and added par. (2).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF IMPLEMENTATION PLANS APPROVED AND IN EFFECT PRIOR TO AUG. 7, 1977

Nothing in the Clean Air Act Amendments of 1977 [Pub. L. 95-95] to affect any requirement of an approved implementation plan under this section or any other provision in effect under this chapter before Aug. 7, 1977, until modified or rescinded in accordance with this chapter as amended by the Clean Air Act Amendments of 1977, see section 406(c) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

SAVINGS PROVISION

Pub. L. 91-604, § 16, Dec. 31, 1970, 84 Stat. 1713, provided that:

“(a)(1) Any implementation plan adopted by any State and submitted to the Secretary of Health, Education, and Welfare, or to the Administrator pursuant to the Clean Air Act [this chapter] prior to enactment of this Act [Dec. 31, 1970] may be approved under section 110 of the Clean Air Act [this section] (as amended by this Act) [Pub. L. 91-604] and shall remain in effect, unless the Administrator determines that such implementation plan, or any portion thereof, is not consistent with applicable requirements of the Clean Air Act [this chapter] (as amended by this Act) and will not provide for the attainment of national primary ambient air quality standards in the time required by such Act. If the Administrator so determines, he shall, within 90 days after promulgation of any national ambient air quality standards pursuant to section 109(a) of the Clean Air Act [section 7409(a) of this title], notify the State and specify in what respects changes are needed to meet the additional requirements of such Act, including requirements to implement national secondary ambient air quality standards. If such changes are not adopted by the State after public hearings and within six months after such notification, the Administrator shall promulgate such changes pursuant to section 110(c) of such Act [subsec. (c) of this section].

“(2) The amendments made by section 4(b) [amending sections 7403 and 7415 of this title] shall not be construed as repealing or modifying the powers of the Administrator with respect to any conference convened under section 108(d) of the Clean Air Act [section 7415 of this title] before the date of enactment of this Act [Dec. 31, 1970].

“(b) Regulations or standards issued under this title II of the Clean Air Act [subchapter II of this chapter] prior to the enactment of this Act [Dec. 31, 1970] shall continue in effect until revised by the Administrator consistent with the purposes of such Act [this chapter].”

FEDERAL ENERGY ADMINISTRATOR

“Federal Energy Administrator”, for purposes of this chapter, to mean Administrator of Federal Energy Administration established by Pub. L. 93-275, May 7, 1974, 88 Stat. 97, which is classified to section 761 et seq. of Title 15, Commerce and Trade, but with the term to mean any officer of the United States designated as such by the President until Federal Energy Administrator takes office and after Federal Energy Administration ceases to exist, see section 798 of Title 15, Commerce and Trade.

Federal Energy Administration terminated and functions vested by law in Administrator thereof transferred to Secretary of Energy (unless otherwise specifically provided) by sections 7151(a) and 7293 of this title.

§ 7411. Standards of performance for new stationary sources

(a) Definitions

For purposes of this section:

(1) The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term “new source” means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

Table of Federal Register Notices

Exhibit 7 Contents	Federal Register Citation	Date
a. Promulgation of the 2015 ozone National Ambient Air Quality Standards	80 FR 65292	October 26, 2015
b. Final Approval of New Mexico's Infrastructure State Implementation Plan for the 2015 ozone National Ambient Air Quality Standards	84 FR 49057	September 18, 2019
c. Promulgation of the Cross State Air Pollution Rule	76 FR 48208	August 8, 2011
d. Promulgation of the Cross State Air Pollution Rule Update	81 FR 74504	October 26, 2016
e. Nitrogen Oxides State Implementation Plan Call	63 FR 57356	October 27, 1998
f. Promulgation of the Clean Air Interstate Rule	70 FR 25162	May 12, 2005
g. Notice of Data Availability for Preliminary Interstate Transport Assessment	82 FR 1733	January 6, 2017
h. Proposed Partial Approval of Arizona's Infrastructure State Implementation Plan for the 2008 ozone National Ambient Air Quality Standards	81 FR 15201	March 22, 2016
i. Final Partial Approval of Arizona's Infrastructure State Implementation Plan for the 2008 ozone National Ambient Air Quality Standards	81 FR 31513	May 16, 2016
j. Finding of Failure to Submit Good Neighbor State Implementation Plan for the 2015 ozone National Ambient Air Quality Standards	84 FR 66612	December 5, 2019