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EPA Actions Affecting Interstate Transport of Ozone

The Clean Air Act (CAA or Act) requires states to submit and implement State Implementation Plans (SIP) to address state air quality for each pollutant with a National Ambient Air Quality Standard (NAAQS) and mitigate any interstate transport of emissions that contribute significantly to nonattainment or interfere with maintenance of another state’s NAAQS (i.e., the “Good Neighbor” provision).¹ Given that the transport of ozone and ozone precursors across state borders can impact air quality in downwind states, several states have stressed that the ozone transport from upwind states continues to exacerbate the difficulty of attaining the ozone standards. This issue brief explores the tools available to states to address interstate transport and recent actions by the Environmental Protection Agency (EPA or Agency) and courts to address Good Neighbor concerns.

Background of Ozone Standards and Attainment

The CAA requires EPA to review primary and secondary NAAQS for criteria pollutants every five years and update the standards, if appropriate. EPA must set primary standards at a level that it determines is requisite to protect public health and set secondary standards at a level requisite to protect public welfare. In reviewing each NAAQS, EPA completes an Integrated Science Assessment (ISA), a Risk and Exposure Assessment (REA), and a Policy Assessment (PA). The Clean Air Scientific Advisory Committee (CASAC) reviews all documents and serves in an advisory capacity during EPA’s review.

Upon completing its review of the ozone NAAQS in 2015, EPA revised the 2008 standard from 75 parts per billion (ppb) to 70 ppb, while retaining the 2008 indicator, averaging time, and form. After finalizing the standard, industry and state petitioners challenged the 2015 ozone NAAQS as overly stringent, while environmental NGOs and public health groups challenged the standard as not sufficiently stringent. While the D.C. Circuit upheld the 2015 ozone NAAQS, the Court remanded certain aspects of the secondary ozone standard to EPA for further justification or reconsideration and vacated the final rule’s grandfathering provision. On August 14, 2020, EPA published its 2020 ozone NAAQS proposal to retain the 2015 primary and secondary ozone NAAQS without revision.²

The ozone NAAQS has been strengthened over time to protect public health and public welfare, but disagreement remains over whether the standard’s stringency should be increased or decreased. (Table 1 summarizes the ozone standards and designations.) Certain areas continue to work to meet the 2008 and 2015 NAAQS with deadlines as far as 2032 for the 2008 standards and 2038 for the 2015 standards, depending on an area’s designation.

¹ 42 U.S.C. 7410((a)(2)(D)(i)(II).

² Review of the Ozone National Ambient Air Quality Standards, Docket No. EPA-HQ-OAR-2018-0279, August 14, 2020, available at: <https://www.govinfo.gov/content/pkg/FR-2020-08-14/pdf/2020-15453.pdf>.

Table 1: Summary of 2008, 2015, and 2020 (proposed) Ozone Standards and Designations

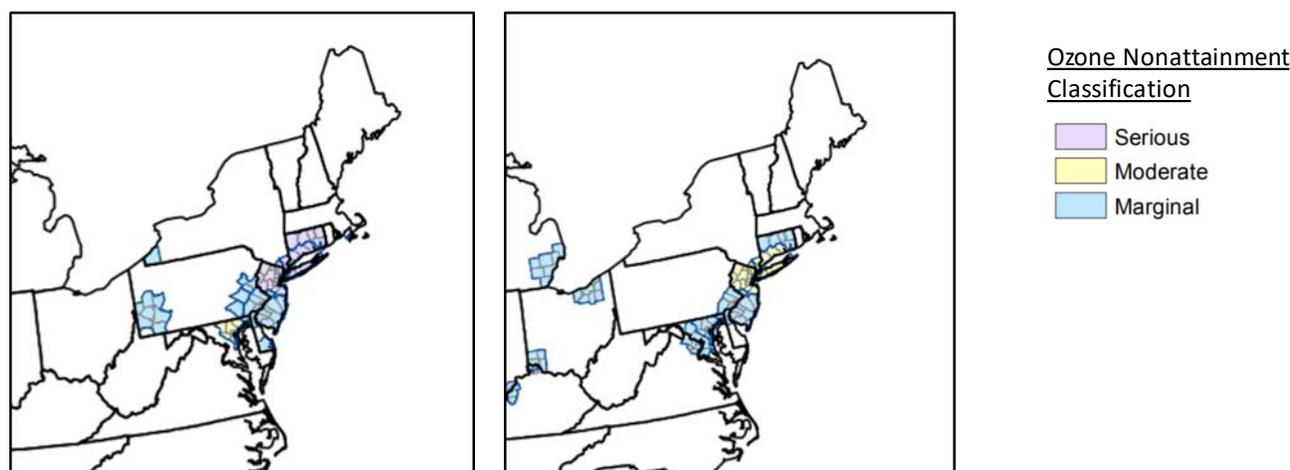
NAAQS	Standard	Status
1997 Ozone	80 ppb (8-hour)	Revoked in 2008
2008 Ozone	75 ppb (8-hour)	Initial designations completed in 2012; attainment deadlines range from 2015 to 2032
2015 Ozone	70 ppb (8-hour)	Initial designations completed in 2018; attainment deadlines range from 2021 to 2038
2020 Ozone (proposed)	70 ppb (8-hour)	EPA proposal

Many areas remain designated as marginal or moderate nonattainment for the 2008 ozone NAAQS despite the attainment deadlines.³ In August 2019, seven moderate areas failed to meet the 2008 ozone NAAQS by the July 2018 deadline; therefore, EPA has reclassified these areas as serious nonattainment with an attainment date of July 2021. Figure 1 highlights the areas currently in nonattainment of the 2008 and 2015 ozone NAAQS with a focus on the Northeast transport region. Overall, 22 states and the District of Columbia have areas in nonattainment of the 2015 standard, as well as the proposed 2020 ozone standard.⁴ (Appendix includes complete maps for the U.S.)

Figure 1: Current Nonattainment Areas for:

2008 Ozone Standard

2015 Ozone Standard



Source: EPA Green Book, <https://www.epa.gov/green-book> (last updated 7/31/2020). The severity of nonattainment areas is indicated by color. When only a portion of a county is shown in color, it indicates that only part of the county is within a nonattainment area boundary. Complete nonattainment maps for the 2008 and 2015 ozone standards are included in the Appendix.

As states strive to meet deadlines, several states and stakeholders have expressed concern that certain areas are not on a path to meet applicable attainment deadlines, and many states have stated that interstate transport of ozone (i.e., pollution from out-of-state sources in upwind states) is contributing to this inability to comply. For example, the

³ EPA, Green Book: 8-Hour Ozone (2008) Nonattainment Area Summary with History (last updated July 31, 2020), available at: <https://www3.epa.gov/airquality/greenbook/hnsum2.html>.

⁴ EPA, Green Book: 8-Hour Ozone (2015) Nonattainment Area State Map (last updated July 21, 2020); available at: <https://www3.epa.gov/airquality/greenbook/jnmapa.html>.

New York Metropolitan Area is currently in “serious” nonattainment with the 2008 ozone NAAQS, with an extended attainment deadline in July 2021. This area is also in “moderate” nonattainment with the 2015 ozone NAAQS, with an attainment deadline in 2024. The New York Department of Environmental Conservation (NY DEC) stated that “[a]bsent additional emissions reductions in upwind states, it is extremely unlikely that the [New York metropolitan area] will attain to the 2008 ozone NAAQS” by the upcoming deadline.⁵ New York estimates that 75 to 95 percent of ozone in-state originates from out-of-state sources.⁶

Modeling by the Ozone Transport Commission (OTC),⁷ a multi-state organization established under the CAA to advise EPA on ozone transport issues and develop and implement regional solutions, projects that non-attainment of the 2008 NAAQS could continue through 2028. The OTC modeling shows that ozone in the Ozone Transport Region (OTR)⁸ will continue to exceed the 2008 NAAQS in 2023 and 2028 in certain areas of Connecticut, New York, New Jersey, and Maryland. While the OTC modeling shows nonattainment continuing past 2023, EPA’s CAMx Model predicts that ozone will be slightly below the 2008 NAAQS in 2023 for those same four states.

Options for States to Address Interstate Pollution

The Good Neighbor provision of the CAA requires states to develop and implement a SIP to address interstate transport of emissions. After a state submits a SIP, EPA must approve or deny it, or, in the absence of an adequate SIP, develop and promulgate a Federal Implementation Plan (FIP). While the Good Neighbor provision is intended to address interstate pollution, states and environmental NGOs have expressed concern that EPA has approved SIPs that insufficiently address interstate transport and has failed to promulgate timely FIPs. EPA has attempted to address these issues at the federal level through the implementation of federal allowance trading programs—the Clean Air Interstate Rule (CAIR) and Cross-State Air Pollution Rule (CSAPR); however, these and subsequent rulemakings have been challenged in court. Additionally, Section 126 of the CAA provides states with a tool to petition EPA to regulate and set emission limits on interstate pollution if it significantly contributes to the non-attainment of NAAQS and is not addressed through past regulatory action. However, use of this tool has thus far proven unsuccessful. State efforts to address interstate pollution through the OTC have also been met with challenges. The sections below outline each of these options and the continued challenges states face in effectively addressing interstate pollution.

Federal Trading Approach (CSAPR Update for 2008 Ozone NAAQS)

EPA designed the 2005 Clean Air Interstate Rule (CAIR) to address interstate transport of fine particulate matter and ozone. CAIR required reductions in SO₂ and NO_x emissions for 28 eastern states whose emissions contributed to unhealthy air in downwind states. In 2011, in response to challenges in court against CAIR, EPA promulgated CSAPR, which implemented a regional allowance trading program to address the interstate transport contributions of 28 states for three NAAQS (the 1997 and 2006 fine particulate matter and the 1997 ozone NAAQS). For each covered state, EPA either found that the state had failed to submit a SIP that addressed interstate air transport under its Good Neighbor obligation or disapproved a state’s SIP on the basis that it would not sufficiently fulfill the state’s Good Neighbor obligation. CSAPR required reductions of sulfur dioxide (SO₂), annual nitrogen oxides (NO_x), and

⁵ Comments submitted by Basil Seggos, Commissioner, NY DEC on EPA’s Proposed Rule: Determination Regarding Good Neighbor Obligations for 2008 Ozone NAAQS.

⁶ Id.

⁷ OTC members include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Virginia.

⁸ The CAA established the OTR and the Act sets forth specific requirements to address interstate transport of ozone for a group of northeast states (the same states that are members of the OTC, except only a portion of Virginia is included in the OTR). (See “Expansion of Ozone Transport Region” section in this summary for additional information.)

ozone season NO_x emissions that were determined to significantly contribute to other states' nonattainment or interfere with other states' ability to maintain these air quality standards.

In September 2016, EPA promulgated the CSAPR Update to address interstate transport of ozone with respect to the 2008 ozone NAAQS. The CSAPR Update requires reductions in NO_x emissions from power plants in 22 eastern states during the summertime ozone season. In the final rule, EPA acknowledges that the CSAPR Update is only a "partial remedy" to address state transport obligations for the 2008 ozone NAAQS. Implementation of the CSAPR Update began in May 2017.

On December 21, 2018, in response to a court-ordered deadline, EPA finalized the CSAPR Close-Out, in which EPA determined that implementation of the CSAPR Update fully addresses 20 eastern states' interstate pollution transport obligations for the 2008 ozone NAAQS.⁹ Thus, under the final rule, EPA and affected states had no obligation to establish additional requirements beyond the CSAPR Update to reduce transported pollution that contributes to nonattainment or maintenance of the 2008 ozone NAAQS.¹⁰ The determination was based on EPA air quality modeling that projects there will be no remaining nonattainment or maintenance receptors for the 2008 ozone NAAQS in the eastern U.S. by 2023.

However, states, environmental NGOs, and industry challenged both the CSAPR Update and CSAPR Close Out rules in the D.C. Circuit. In September 2019, the D.C. Circuit remanded the CSAPR Update to EPA without vacatur, holding that the rule was inconsistent with the CAA because it allowed upwind states to continue their significant air emission contributions to downwind states beyond those states' statutory deadlines for attainment.¹¹

Additionally, in October 2019, the D.C. Circuit vacated the CSAPR Close Out, explaining the rule "relied upon the same statutory interpretation of the Good Neighbor Provision" that the Court rejected in its CSAPR Update decision. Thus, while the Court explained that EPA has some flexibility in implementing the Good Neighbor provision, the Court found that EPA had no defense of the CSAPR Close Out, reaffirming the holding that "the Good Neighbor Provision requires the EPA to eliminate, not just reduce, upwind states' excess emissions by the next attainment deadline."

Based on the ongoing transport concerns and the D.C. Circuit decisions, states and environmental NGOs filed complaints in February 2020 seeking an order to compel EPA to issue Good Neighbor FIPs for the 2008 ozone standard.¹² Specifically, the states and environmental NGOs noted the need to issue Good Neighbor FIPs by the start of the 2020 ozone season (in May 2020) to allow downwind states to demonstrate timely attainment before the July 20, 2021 attainment deadline for serious nonattainment areas. In response, this July, the Court ordered EPA to promulgate FIPs by March 15, 2021 to address Good Neighbor obligations for Illinois, Indiana, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia for the 2008 ozone NAAQS.¹³

⁹ Affected states include Alabama, Arkansas, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Texas, Virginia, West Virginia, Wisconsin.

¹⁰ Determination Regarding Good Neighbor Obligations for the 2008 Ozone NAAQS, 83 Fed. Reg. 65878 (December 21, 2018); available at: <https://www.epa.gov/airmarkets/final-csapr-close-out>.

¹¹ D.C. Circuit, Case No. 16-1406 (September 13, 2019); available at: [https://www.cadc.uscourts.gov/internet/opinions.nsf/AB56D2429DBDBE3B8525847400512A0D/\\$file/16-1406.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/AB56D2429DBDBE3B8525847400512A0D/$file/16-1406.pdf).

¹² NGOs filed a complaint in the U.S. District Court for the District of Columbia. The states of New Jersey, Connecticut, Delaware, New York, and Massachusetts, as well as the City of New York, filed a separate complaint in the U.S. District Court for the Southern District of New York.

¹³ U.S. District Court for the Southern District of New York, Case No. 20-cv-1425 (July 28, 2020); available at: <https://www.courthousenews.com/wp-content/uploads/2020/07/epa-ozone.pdf>.

Section 126 Petitions

Section 126 of the CAA authorizes states to request that EPA set emissions limits for specific out-of-state sources that significantly contribute to nonattainment or interfere with maintenance for one or more NAAQS in the petitioning state. Several states have taken steps to use this provision; however, EPA has thus far denied all petitions. Maryland, Delaware, and New York have appealed those denials in court.

In 2016, Maryland and Delaware filed Section 126 petitions requesting that EPA impose additional limitations on specific stationary sources in neighboring upwind states arguing that the states were violating the Good Neighbor provision for the 2008 and 2015 ozone NAAQS. EPA denied the states' petitions in 2018, finding that neither Maryland nor Delaware could establish a violation of the Good Neighbor provision. On May 19, 2020, the D.C. Circuit largely upheld EPA's denial except for one aspect finding that EPA provided an inadequate explanation for its determination that non-catalytic controls were not cost-effective to implement at the sources identified by Maryland.¹⁴ Noting the Court's decision that partially invalidated the CSAPR Update, the Court explained that it could not endorse EPA's reliance on the CSAPR Update's conclusion that non-catalytic controls at these sources would not be cost-effective. The Court noted that "[a]s the EPA concedes, the agency's judgment about the cost-effectiveness of non-catalytic controls may change when it conducts a new comparative analysis in response to the [CSAPR Update] remand." Thus, while EPA could still choose the same cost threshold as it originally did, the Court noted that "it must review an agency's action on the basis of reasons it actually gave, not ones it hypothetically could."

By contrast, the D.C. Circuit took a different approach in reviewing New York's Section 126 petition. In March 2018, New York filed a Section 126 petition regarding 350 sources in nine states that it argued were contributing significantly to nonattainment in the New York Metropolitan Area for the 2008 and 2015 ozone NAAQS. In September 2019, EPA denied the petition, finding that New York failed to meet the Agency's standard for establishing a violation of the Good Neighbor provision and that the CSAPR Update fully addressed any Good Neighbor provision violations arising in the nine states. On July 14, 2020, the Court held that "EPA offered insufficient reasoning for the convoluted and seemingly unworkable showing it demanded of New York's petition."¹⁵ Additionally, the Court found that EPA, in deciding that New York did not have an air quality problem under the 2008 NAAQS, relied on two interpretations of the CAA that the Court had since invalidated as part of the CSAPR Update and CSAPR Close Out decisions. The Court vacated EPA's decision and remanded it for further proceedings consistent with the opinion.

These cases, as well as the petitions listed in Table 2 below, highlight that states are using Section 126 petitions as one of the tools to address interstate transport issues, but with limited success. The *Maryland* and *New York* cases demonstrate, however, that the Courts will require EPA to provide adequate reasoning for any Section 126 petition denials and ensure that upwind states' contribution of emissions are addressed prior to a downwind state's nonattainment deadline.

¹⁴ D.C. Circuit, Case No. 18-1285 (May 19, 2020); available at:

[https://www.cadc.uscourts.gov/internet/opinions.nsf/E3CA58C4AC1326ED8525856D004E115E/\\$file/18-1285-1843403.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/E3CA58C4AC1326ED8525856D004E115E/$file/18-1285-1843403.pdf).

¹⁵ D.C. Circuit, Case No. 19-1231 (July 14, 2020); available at:

[https://www.cadc.uscourts.gov/internet/opinions.nsf/59B283676622CF1F852585A5005203B9/\\$file/19-1231.CORRECTED.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/59B283676622CF1F852585A5005203B9/$file/19-1231.CORRECTED.pdf).

Table 2: Status of Section 126 Petitions

Petitioning State	Date Petition Filed with EPA	Pollution Source	Location of Source(s)	Ozone Standard	EPA Action
<i>Connecticut</i>	June 2016	Brunner Island Steam Electric Station	PA	2008	Denied in Apr. 2018
<i>Delaware</i>	July 2016	Brunner Island Steam Electric Station	PA	2008, 2015	Denied in Oct. 2018
	Aug. 2016	Harrison Power Station	WV	2008, 2015	Denied in Oct. 2018
	Nov. 2016	Homer City Power Station	PA	2008, 2015	Denied in Oct. 2018
	Nov. 2016	Conemaugh Generating Station	PA	2008, 2015	Denied in Oct. 2018
<i>Maryland</i>	Nov. 2016	36 electric generating units	IN, KT, OH, PA, WV	2008, 2015	Denied in Oct. 2018 (partial remand back to EPA)
<i>New York</i>	Mar. 2018	Stationary sources in listed states emitting at least 400 tons per year of NOx	IL, IN, KT, MD, MI, OH, PA, VA, WV	2008, 2015	Denied Oct. 2019 (remanded back to EPA)

Source: EPA, Ozone NAAQS Section 126 Petitions, <https://www.epa.gov/ground-level-ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs-section-126>.

Expansion of Ozone Transport Region

The CAA 1990 Amendments established the OTR comprised of Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and a portion of Virginia. States in the OTR, regardless of attainment designations, must require reasonably available control technology (RACT) as well as certain controls measures for ozone and ozone precursors. The OTR states participate in the OTC, which works to develop and help states implement regional solutions to the ground-level ozone problem in the region.

On December 9, 2013, nine of the OTR states¹⁶ filed a CAA Section 176(a) petition to expand the OTR to include nine “upwind” states (Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, West Virginia and a portion of Virginia). The petition argued that these states significantly contribute to violations of the 2008 ozone NAAQS in the OTR. On November 3, 2017, EPA denied the petition stating that it “believes that other CAA provisions, (e.g., [the good neighbor provision]), provide a better pathway for states and the EPA to develop a tailored remedy that is most effective for addressing any remaining air quality problems for the 2008 ozone NAAQS identified by the petitioners.”

On December 26, 2017, eight of those states challenged EPA’s denial of the section 176(a) petition in the D.C. Circuit.¹⁷ The petitioning states argued that EPA’s action was unlawful and should be vacated on the grounds that Congress intended other provisions in the Act to “be used in tandem with—not in place of—the distinct, tailored

¹⁶ The states included: Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont.

¹⁷ The litigating states include: New York, Connecticut, Delaware, Maryland, Massachusetts, Pennsylvania, Rhode Island, and Vermont.

tools available under the Transport Region provisions.” However, in April 2019, the D.C. Circuit upheld EPA’s decision to deny the Section 176(a) petition, agreeing that EPA can use other tools more efficiently to address transport issues. While EPA stated it will rely on the Good Neighbor provision as well as “section 126 petitions to address interstate transport issues rather than expanding the transport region,” as noted above, EPA has opposed using those tools to date.

Implications for Interstate Transport

The current Administration has consistently stated that the obligation to address transport lies in the state’s SIP, and if EPA has approved the SIP, a downwind state challenging an upwind state’s SIP will need to show new information to demonstrate the approved SIP is no longer adequate. EPA has taken steps to implement this approach with its CSAPR Update and CSAPR Close Out rulemakings; however, recent court decisions remanding these rules to EPA has led to continued uncertainty.

States’ efforts to address interstate transport issues through the use of Section 126 petitions have received mixed responses in the courts. The decisions in *Maryland* and *New York* suggest that EPA must provide clearer justifications for its denial of the petitions. Additionally, in *New York*, Judge Griffith’s concurring opinion specifically noted that Section 126 is designed for “targeted regulation,” and that “comprehensive remedies” to satisfy the Good Neighbor provision should only be implemented through SIPs or FIPs.¹⁸ Judge Griffith based his reasoning on the statutory text, which limits Section 126 to petitions to a “single major source” or “group of stationary sources,” arguing that New York’s petition targeting 350 sources of different types across nine different states cannot reasonably constitute a “group.” Judge Griffith also noted that, contextually, the “tight deadlines and harsh remedial scheme” in the CAA further confirms that Section 126 “isn’t designed to solve comprehensive regional problems.”

The SIP process, EPA’s CSAPR rulemakings, and Section 126 petitions have all proven to be challenging in addressing interstate transport issues. Thus, EPA may need to reexamine regional transport comprehensively as it considers states efforts to comply with both the 2008 and 2015 ozone NAAQS. In contrast to other regulatory matters where the November election could dramatically change the final requirements, the courts have established boundaries that will constrain and guide EPA’s rulemakings for any administration. It will also be important to consider whether EPA and states start to consider emission reductions from sectors other than power to meet upcoming NAAQS deadlines.

In the near term, the recent court decisions noted in this summary will ensure EPA continues to take steps to address these issues. As a result of the CSAPR Update and Close Out remands, the U.S. District Court for the Southern District of New York is requiring EPA to address Good Neighbor obligations for Illinois, Indiana, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia for the 2008 ozone NAAQS by March 15, 2021. Additionally, EPA will need to consider whether other measures are necessary to address any remaining transport issues in light of those remands. EPA is also required, in accordance with the D.C. Circuit’s opinions in *Maryland* and *New York*, to address certain aspects of Maryland’s Section 126 petition and all of New York’s petition. These upcoming deadlines will continue to require EPA to consider options to address interstate transport.

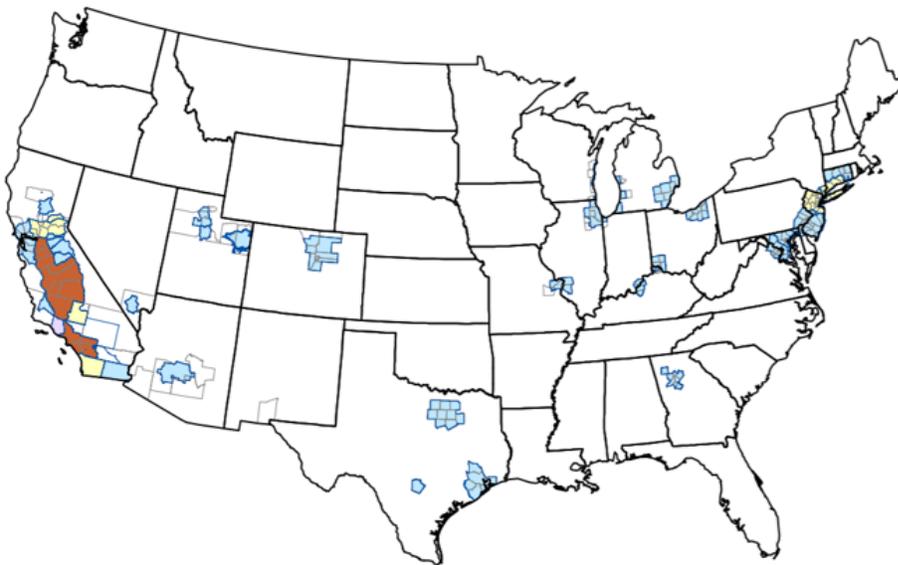
¹⁸ D.C. Circuit, Case No. 19-1231 (July 14, 2020); available at: [https://www.cadc.uscourts.gov/internet/opinions.nsf/59B283676622CF1F852585A5005203B9/\\$file/19-1231.CORRECTED.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/59B283676622CF1F852585A5005203B9/$file/19-1231.CORRECTED.pdf).

Appendix 1: Current Nonattainment Areas

2008 Ozone Standard



2015 Ozone Standard



Source: EPA Green Book, <https://www.epa.gov/green-book> (last updated 7/31/2020). The severity of nonattainment areas is indicated by color. When only a portion of a county is shown in color, it indicates that only part of the county is within a nonattainment area boundary.

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