

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued October 21, 2014

Decided June 2, 2015

No. 12-1309

MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY AND GINA
McCARTHY,
RESPONDENTS

STATE OF CONNECTICUT, ET AL.,
INTERVENORS

Consolidated with 12-1310, 12-1312, 12-1313, 12-1315,
12-1316, 12-1317, 12-1318, 12-1322, 12-1323, 12-1326,
12-1328, 13-1030, 13-1032, 13-1046, 13-1050, 13-1051,
13-1052, 13-1053, 13-1054

On Petitions for Review of Final Action of the
United States Environmental Protection Agency

Valerie Satterfield Edge, Deputy Attorney General, Office
of the Attorney General for the State of Delaware, argued the
cause for the petitioners Delaware Department of Natural
Resources and Environmental Control and the State of
Connecticut. *George Jepsen*, Attorney General, and *Kimberly*

P. Massicotte and *Scott N. Koschwitz*, Assistant Attorneys General, were with her on brief.

Robin L. Cooley and *Robert Ukeiley* argued the causes and filed the joint briefs for Environmental Petitioners. *James J. Tutchton* entered an appearance.

Donna J. Hodges and *Reed D. Rubinstein* argued the causes for State and County Petitioners. *Gary C. Rikard* and *Mark L. Walters*, Assistant Attorneys General, Office of the Attorney General for the State of Texas, were with them on the joint brief. *Gregory W. Abbott*, Attorney General, Office of the Attorney General for the State of Texas, and *Jonathan K. Niermann*, Assistant Attorney General, and *Mary Ann Poirier* entered appearances.

Timothy J. Junk, Deputy Attorney General, Office of the Attorney General for the State of Indiana, argued the cause for the petitioner State of Indiana. *Gregory F. Zoeller*, Attorney General, was with him on brief.

Roger R. Martella Jr. argued the cause for the Industrial Petitioners. *Timothy K. Webster*, *Ryan C. Morris*, *David C. Duggins*, *Matt Paulson*, *Howard Rubin*, *Glen Donath*, *Christopher D. Jackson*, *William L. Wehrum* and *Aaron M. Flynn* were with him on brief.

Elizabeth B. Dawson and *Jessica O'Donnell*, Attorneys, United States Department of Justice, argued the causes for the respondent. *Robert G. Dreher*, Acting Assistant Attorney General, and *Jan Tierney*, Attorney, United States Environmental Protection Agency, were with them on brief.

Sean D. Reyes, Attorney General, Office of the Attorney General for the State of Utah, *Bridget Romano*, Utah Solicitor General, *Connie S. Nakahara*, Assistant Utah Attorney General, *Constance E. Brooks*, *David G. Scott* and *Bret A. Sumner* were on the joint brief for the respondent-intervenors State of Utah, et al. *Mark L. Shurtleff*, former Attorney General, Office of the Attorney General for the State of Utah, entered an appearance.

Tómas Carbonell and *Peter Zalzal* were on brief for the respondent-intervenor Environmental Defense Fund. *Vickie L. Patton* entered an appearance.

Before: GARLAND, *Chief Judge*, and HENDERSON and SRINIVASAN, *Circuit Judges*.

Opinion for the Court filed PER CURIAM.

PER CURIAM: The Congress enacted the Clean Air Act (the Act), 42 U.S.C. §§ 7401 *et seq.*, “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” *Id.* § 7401(b)(1). At issue in this case is Title I of the Act, which requires the Environmental Protection Agency (EPA) to promulgate National Ambient Air Quality Standards (NAAQS), thus setting the maximum level of permissible pollutant concentration in the atmosphere. *See id.* §§ 7408(a)(1), 7409(a)–(b). After the EPA sets the NAAQS, it must determine whether each state is in compliance with these air-quality standards and, in the event of a NAAQS violation, how to establish the geographic boundaries around the non-compliant area. *See id.* § 7407(d)(1).

In these consolidated petitions, several states, counties, industrial entities and environmental organizations challenge

the EPA's determination that certain geographic areas are, or are not, in "attainment" with the EPA's ground-level ozone NAAQS. *Id.* Some argue that the Act, as applied to them, violates various Constitutional provisions; others argue that the EPA misconstrued the terms of the Act. Virtually every petitioner argues that, for one reason or another, the EPA acted arbitrarily and capriciously in making its final NAAQS designations. But because the EPA complied with the Constitution, reasonably interpreted the Act's critical terms and wholly satisfied—indeed, in most instances, surpassed—its obligation to engage in reasoned decision-making, we deny the consolidated petitions for review in their entirety.

I. BACKGROUND

The EPA began the odyssey resulting in these consolidated petitions nearly seven years ago. Along the way, it construed a variety of the Act's provisions, promulgated regulations and issued informal guidance to assist in the collaborative area-designation effort between it and the states. Before discussing the substance of the issues, a brief overview of the Act and the underlying proceedings in this case is in order.

A. THE CLEAN AIR ACT

Under the Act, the EPA must promulgate NAAQS, which set the maximum ambient, or outdoor, air concentrations for six pollutants that "may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7408(a)(1). Once it establishes a NAAQS, the EPA must designate each "area" in the United States as "attainment" or "nonattainment." *See id.* § 7407(d)(1)(A)(i)–(ii). Alternatively, the EPA may designate an area as "unclassifiable" if the area "permit[s] no determination given existing data." *Catawba Cnty., N.C. v.*

EPA, 571 F.3d 20, 26 (D.C. Cir. 2009) (citing 42 U.S.C. § 7407(d)(1)(A)(i)–(iii)). The EPA treats an “unclassifiable” area as if it were in attainment. *See* 42 U.S.C. § 7471.

Generally speaking, the EPA designates an area that meets the relevant NAAQS as in attainment, while areas that exceed the NAAQS receive a nonattainment designation. *See Catawba Cnty.*, 571 F.3d at 26. But even if an area’s ambient air concentration complies with the relevant NAAQS, the EPA nonetheless designates it as nonattainment if it “contributes” to a NAAQS violation in a “nearby area.” *See* 42 U.S.C. § 7407(d)(1)(A)(i). The Act does not define the terms “contributes,” “nearby” or “area.”

The EPA works collaboratively with the states to determine the NAAQS-attainment status for all areas within a respective state’s borders. No later than one year after the EPA promulgates a new or revised NAAQS, each state must submit recommended “initial designations” to the EPA. *Id.* § 7407(d)(1)(A). A state’s initial designations must suggest both the appropriate geographic boundaries for each “area” and whether the EPA should classify the suggested area as attainment, nonattainment or unclassifiable. *See id.* § 7407(d)(1)(A)–(B).

Once it receives a state’s initial designations, the EPA may either promulgate them as submitted or modify them as it “deems necessary.” *Id.* § 7407(d)(1)(B)(ii). The Act gives the EPA discretion to change a state’s recommended designation, to alter a state’s proposed geographic area or both. *See id.* Although the EPA “has no obligation to give any quantum of deference to a designation that it ‘deems necessary’ to change,” *Catawba Cnty.*, 571 F.3d at 40, it must nonetheless notify the state of any intended change and provide the state with at least 120 days “to demonstrate why any

proposed modification is inappropriate,” 42 U.S.C. § 7407(d)(1)(B)(ii). These notifications are known as “120-day letters.” See Air Quality Designations for the 2008 Ozone National Ambient Air Quality Standards, 77 Fed. Reg. 30,088, 30,090 (May 21, 2012) [hereinafter 2008 Designations Rule].

While the EPA has ultimate authority to determine each area’s attainment status, each state has “primary responsibility” for ensuring that the geographic areas within its borders either maintain attainment or progress towards it. 42 U.S.C. § 7407(a). Accordingly, once the EPA finalizes its designations, each state must submit to the EPA a State Implementation Plan (SIP) specifying how the NAAQS “will be achieved and maintained.” *Id.* For areas in attainment, the SIP must simply “contain emission limitations and such other measures as may be necessary . . . to prevent significant deterioration of air quality.” *Id.* § 7471.

For a nonattainment area, however, the Act imposes more stringent requirements. A SIP from a state with a nonattainment area must demonstrate that the state intends to implement “all reasonably available control measures” and “reasonably available control technology” to bring the area into attainment. *Id.* § 7502(c)(1). The Act also imposes deadlines, or “attainment dates,” on an offending area. See *id.* § 7502(a)(2)(A). For a violation of a primary¹ NAAQS, the offending state must reach attainment “as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment.” *Id.* The EPA “may extend the attainment date to the extent [it] determines appropriate” but only “for a period no greater than 10 years from the date of designation as nonattainment.” *Id.* Taken together, these

¹ See *infra* n.2.

two requirements often mean that a state with a nonattainment area must implement potentially expensive technology or expensive process changes to reduce pollution levels over a relatively short period of time. If a state fails to reach attainment timely and the failure is due to inadequate implementation efforts, sanctions can be imposed, including loss of federal highway funds and increasingly severe restrictions on emissions sources within the state. *See id.* § 7509(a)–(b).

B. THE 2008 OZONE NAAQS AND THE EPA’S 2008 GUIDANCE

On March 12, 2008, the EPA promulgated new primary and secondary NAAQS for ambient ozone,² a component of urban smog. *See* 2008 Designations Rule, 77 Fed. Reg. at 30,089. Even though ozone is an “essential presence in the atmosphere’s stratospheric layer,” it becomes harmful at ground level and “can cause lung dysfunction, coughing, wheezing, shortness of breath, nausea, respiratory infection, and in some cases, permanent scarring of the lung tissue.” *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 887 (D.C. Cir. 2006) (quoting Henry A. Waxman, *An Overview of the Clean Air Act Amendments of 1990*, 21 ENVTL. L. 1721, 1758 (1991)). It also “has a broad array of effects on trees,

² “Primary” NAAQS exist to protect the “public health,” 40 C.F.R. § 50.2(b), and they ensure the safety of “sensitive” populations such as asthmatics, children and the elderly. *See* National Ambient Air Quality Standards (NAAQS), EPA, <http://www.epa.gov/air/criteria.html> (last updated Oct. 21, 2014). “Secondary” NAAQS exist to protect the “public welfare,” 40 C.F.R. § 50.2(b), and they prevent harms like decreased visibility and damage to animals, crops, vegetation and buildings. *See* National Ambient Air Quality Standards (NAAQS), EPA, <http://www.epa.gov/air/criteria.html> (last updated Oct. 21, 2014).

vegetation, and crops and can indirectly affect other ecosystem components such as soil, water, and wildlife.” *Mississippi v. EPA*, 744 F.3d 1334, 1340 (D.C. Cir. 2013). Because ozone forms at ground level when “ozone precursors”—specifically, nitrous oxides (NO_x) and volatile organic compounds (VOCs)—react with sunlight, NAAQS compliance largely depends on reducing emissions from ozone-precursor producers like power plants, industrial compounds, motor vehicles and combustion engines. See 2008 Designations Rule, 77 Fed. Reg. at 30,089. Complicating this task is that ozone and ozone precursors travel easily through the atmosphere, which can result in NAAQS violations hundreds of miles away from the source of the ozone precursors. See *id.*

Both the EPA’s 2008 primary and secondary ozone NAAQS reduced the maximum allowable daily average eight-hour level of ozone from 0.08 parts per million (ppm) to 0.075 ppm. See National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16,436, 16,436–37 (Mar. 27, 2008). By setting these new NAAQS, the EPA triggered the states’ responsibility to submit their initial designations. See 42 U.S.C. § 7407(d)(1)(A). To assist this process, the EPA issued a guidance titled “Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards” [hereinafter 2008 Guidance] on December 4, 2008, which included several matters relevant to the instant petitions.

First, the 2008 Guidance instructed states on the quality of data it expected them to consider. Specifically, it recommended that the states “identify violating areas using the most recent three consecutive years of quality-assured, certified air quality data.” 2008 Guidance at 2. The 2008 Guidance also informed the states that “[i]n general, [NAAQS] violations [will be] identified using data from . . . monitors that

are sited and operated in accordance with [EPA regulations located at] 40 C.F.R. Part 58.” *Id.*

Second, the 2008 Guidance provided instruction for establishing geographic boundaries around nonattainment areas, noting first that the “EPA believes it is important to examine ozone-contributing emissions across a relatively broad geographic area.” 2008 Guidance at 3. Accordingly, the 2008 Guidance recommended that if an air-quality monitor reports a NAAQS violation, the state should consider using the Core Based Statistical Area (CBSA) or Combined Statistical Area (CSA) in which the monitor is located as the “presumptive” boundary.³ *Id.* If the violating monitor is not in a CSA or CBSA, the 2008 Guidance recommended using the county in which the violating monitor is located as the presumptive boundary. *Id.*

³ A CBSA is defined by the Office of Management and Budget (OMB) as:

[A] statistical geographic entity consisting of the county or counties associated with at least one core (urbanized area or urban cluster) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core.

See Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,228, 82,238 (Dec. 27, 2000). A CSA is formed by two or more adjacent CBSAs if there is sufficient “employment interchange” between them. *Id.* In other words, CSAs and CBSAs are both roughly equivalent to a “metropolitan” area. *See generally id.* at 82,235–36. Throughout this opinion, we use the term “metropolitan area” to refer to the CSA or CBSA, as defined in the 2008 Guidance. *See* 2008 Guidance at 3 & n.2.

The 2008 Guidance made plain, however, that CSAs, CBSAs and county lines were merely *presumptive* boundaries, recognizing that “area-specific analyses . . . may support nonattainment area boundaries that are larger or smaller than the presumptive area starting point.” *Id.* Stressing that “each potential nonattainment area should be evaluated on a case-by-case basis,” the 2008 Guidance instructed the states to consider nine factors when determining a nonattainment area’s borders. *See id.* at 2, Attach. 2. These include (1) air-quality data; (2) emissions data (such as location of emissions sources and contribution to ozone concentrations); (3) population density and degree of urbanization (including commercial development); (4) traffic and commuting patterns; (5) population growth rates and patterns; (6) meteorology (such as weather and air-transport patterns); (7) geography and topography (such as mountain ranges or other air-basin boundaries that could affect ozone dispersion); (8) jurisdictional boundaries (such as counties, air districts, existing nonattainment area boundaries and regional planning authority boundaries) and (9) the level of control of emissions sources. *See id.* Attach. 2. The 2008 Guidance stated that the EPA planned to consider these same factors, “along with any other relevant information,” in determining whether to modify the states’ initial designations. *Id.*

C. THE 2008 OZONE DESIGNATION PROCESS

By 2009, all states had submitted their initial designations to the EPA. Rather than immediately reviewing the initial designations, however, the EPA halted the designation process to consider whether to lower the ozone NAAQS even further. This delay prompted a lawsuit by WildEarth Guardians—an environmental-group petitioner in this case—that sought to compel the EPA to complete the stalled ozone NAAQS

designation process.⁴ The EPA and WildEarth Guardians eventually entered into a consent decree that required the EPA to finalize its designations no later than May 31, 2012. See 2008 Designations Rule, 77 Fed. Reg. at 30,091.

The EPA notified the states in September 2011 that it intended to finalize the ozone NAAQS designations by the May 31, 2012 deadline set forth in the consent decree. In accordance with the 2008 Guidance's instruction to "identify violating areas using the most recent three consecutive years of quality-assured, certified air quality data," 2008 Guidance at 2, virtually every state had already submitted air-quality data from 2008 to 2010 by the time the EPA resumed the designation process. Although the EPA assured the states that it still planned to consider the recommended designations and ozone data they had submitted initially, it recognized that some states may have collected more recent air-quality data for their regions. For this reason, the EPA allowed the states to provide updated recommendations and analyses—so long as any updated air-quality data was certified for quality—but assured them that they were under no obligation to do so. In response to this invitation, several states updated their initial designations and some submitted air-quality data from 2009 to 2011 to replace their older 2008 to 2010 data. The states seeking to use data from 2009 to 2011 agreed to certify their data for quality by February 29, 2012, so that the EPA had sufficient time to consider the more recent data in advance of its May 31, 2012 deadline to finalize the designations.

The EPA then reviewed each state's initial designations to determine whether to modify them. It first examined the air-quality submissions from the states to determine which

⁴ See *WildEarth Guardians, et al. v. Jackson*, No. 2:11-CV-01661 (D. Ariz. filed Aug. 24, 2011).

monitors reported ozone NAAQS violations. If a state certified its air-quality data from 2011 by the February 29, 2012 deadline, the EPA generally considered its air-quality data from the years 2009 to 2011. For all other states, the EPA considered air-quality data from 2008 to 2010.

After identifying NAAQS-violating monitors, the EPA decided whether to alter the states' respective recommended nonattainment boundaries. To do so, the EPA used a multi-factor, weight-of-the-evidence test that tracked—but was not identical to—the nine-factor test in the 2008 Guidance. Specifically, the EPA collapsed the 2008 Guidance's nine-factor test into a five-factor test, which examined (1) "Air Quality Data," or whether an area's monitor reported a NAAQS violation; (2) "Emissions Data," including emissions levels and controls, population, population density, population growth, degree of urbanization and traffic and commuting patterns; (3) "Meteorology," including wind speed and direction; (4) "Geography/Topography," which examined the effect of physical land features on the distribution of ozone and (5) "Jurisdictional Boundaries," which helped determine whether certain areas could effectively carry out air-quality planning and enforcement functions for nonattainment areas.

Once attainment designations were made, the EPA notified the states of any proposed modifications it deemed necessary and invited them to submit any additional data or comments they wished to have the EPA consider. Although not required by statute, *see* 42 U.S.C. § 7407(d)(2)(B), the EPA also opened a 30-day public comment period on the proposed notifications. Several states, organizations and members of the public—including many of the petitioners in this case—submitted comments. The EPA considered the comments and then promulgated its final designations, which identified 48 nonattainment areas in 26 states, the District of

Columbia and Indian country. The nonattainment areas included 192 counties *in toto* and 36 counties in part. The EPA published the majority of its final designations on May 21, 2012, *see* 2008 Designations Rule, 77 Fed. Reg. at 30,088, and in the case of certain Chicago-area designations, on June 11, 2012, *see* Air Quality Designations for the 2008 Ozone National Ambient Air Quality Standards for Several Counties in Illinois, Indiana, and Wisconsin; Corrections to Inadvertent Errors in Prior Designations, 77 Fed. Reg. 34,221, 34,221 (June 11, 2012).

After the EPA received and denied 29 petitions for reconsideration, the parties in this consolidated case⁵ petitioned this Court for review. We have jurisdiction under 42 U.S.C. § 7607(b)(1).

⁵ *See Del. Dep't of Natural Res. & Env'tl. Control v. EPA*, No. 12-1310 (D.C. Cir.); *Tex. Pipeline Ass'n v. EPA*, No. 12-1312 (D.C. Cir.); *Wise Cnty., Tex. v. EPA*, No. 12-1313 (D.C. Cir.); *Indiana v. EPA*, No. 12-1315 (D.C. Cir.); *Texas v. EPA*, No. 12-1316 (D.C. Cir.); *Sierra Club v. EPA*, No. 12-1317 (D.C. Cir.); *Gas Processors Ass'n v. EPA*, No. 12-1318 (D.C. Cir.); *Devon Energy Corp. v. EPA*, No. 12-1322 (D.C. Cir.); *Targa Resources Corp. v. EPA*, No. 12-1323 (D.C. Cir.); *WildEarth Guardians v. EPA*, No. 12-1326 (D.C. Cir.); *DeSoto Cnty., Miss. v. EPA*, No. 12-1328 (D.C. Cir.); *Sierra Club v. EPA*, No. 13-1030 (D.C. Cir.); *WildEarth Guardians v. EPA*, No. 13-1032 (D.C. Cir.); *Wise Cnty., Tex. v. EPA*, No. 13-1046 (D.C. Cir.); *Devon Energy Corp. v. EPA*, No. 13-1050 (D.C. Cir.); *Tex. Pipeline Ass'n v. EPA*, No. 13-1051 (D.C. Cir.); *Gas Processors Ass'n v. EPA*, No. 13-1052 (D.C. Cir.); *Texas v. EPA*, No. 13-1053 (D.C. Cir.); *Targa Res. Corp. v. EPA*, No. 10-1054 (D.C. Cir.).

II. COMMON LEGAL PRINCIPLES

Before addressing the petitioners' individual challenges, we think it helpful to discuss several principles that bear on most, if not all, of the issues the petitioners have raised.

First, we review the EPA's NAAQS designations under the same standard we use in reviewing a challenge brought under the Administrative Procedure Act (APA). *See Allied Local & Reg'l Mfrs. Caucus v. EPA*, 215 F.3d 61, 68 (D.C. Cir. 2000). Accordingly, we will set aside a NAAQS designation by the EPA only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Catawba Cnty.*, 571 F.3d at 41 (quoting 5 U.S.C. § 706(2)(A)). We must, however, give an "extreme degree of deference" to the EPA's evaluation of "scientific data within its technical expertise," *City of Waukesha v. EPA*, 320 F.3d 228, 247 (D.C. Cir. 2003), especially where, as here, we review the "EPA's administration of the complicated provisions of the Clean Air Act." *Catawba Cnty.*, 571 F.3d at 41 (citing *Nat'l Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1229 (D.C. Cir. 2007)). Because the EPA's "basic obligation" is to conduct "reasoned decisionmaking," *id.* at 25, we will uphold its action if the record shows that the EPA "considered all relevant factors and articulated a 'rational connection between the facts found and the choice made,' " *id.* at 41 (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)).

Second, we have long since rejected the argument that the EPA violates the Act if it uses a holistic, multi-factor, weight-of-the-evidence test for determining whether a given area contributes to a NAAQS violation. *See ATK Launch Sys., Inc. v. EPA*, 669 F.3d 330, 336–37 (D.C. Cir. 2012) (challenge to 2006 fine particulate matter NAAQS designations); *Catawba Cnty.*, 571 F.3d at 46 (challenge to

1997 fine particulate matter NAAQS designations). Indeed, in *Catawba County*, we made explicit that the EPA does not violate the Act even if it fails to adopt “a bright-line, ‘objective’ test” for determining contribution and we also held that the “EPA’s failure to quantify its analysis” does not render “its interpretation of ‘contribute’ arbitrary and capricious and therefore unreasonable.” 571 F.3d at 39. Rather, because “[a]n agency is free to adopt a totality-of-the-circumstances test to implement a statute that confers broad discretionary authority, even if that test lacks a definite ‘threshold’ or ‘clear line of demarcation to define an open-ended term,’ ” we have held that, “[t]o be reasonable, such an ‘all-things-considered standard’ must simply define and explain the criteria the agency is applying.” *Id.*

With this background in mind, we now turn to the petitioners’ challenges.

III. THE PETITIONERS’ CHALLENGES

A. DELAWARE & CONNECTICUT

We begin with a challenge to the EPA’s construction of the key statutory provision in this case. Petitioners Delaware and Connecticut challenge the EPA’s refusal to designate broad, multi-state nonattainment areas to address the issue of long-range ozone transport. According to the States, the EPA’s final designations are inconsistent with its statutory mandate to designate areas as nonattainment if they “contribute[] to ambient air quality in a *nearby* area that does not meet [the NAAQS].” 42 U.S.C. § 7407(d) (emphasis added). We conclude, to the contrary, that the designations are consistent with the EPA’s reasonable interpretation of the ambiguous statutory term “nearby.”

After the EPA reopened the designation process in 2011, Delaware proposed a nonattainment area that would stretch across 16 upwind states and the District of Columbia—to states as far west as Missouri. Connecticut similarly proposed an 18-state nonattainment area, also stretching west to Missouri. Both States argued for what Delaware described as a “more workable definition of ‘nearby’”—one that would ask “whether a source is ‘near enough to contribute’ to nonattainment or interfere with maintenance.” Letter from Del. Dep’t of Natural Res. & Env’tl. Control to EPA 5 (Oct. 28, 2011) [hereinafter Delaware Response].

The EPA, however, had taken a different approach in the 2008 Guidance, instead interpreting “nearby” as presumptively including counties in the same metropolitan area as the violating county. 2008 Guidance at 3. In the Guidance, the EPA acknowledged that certain regions have ozone transport problems, but it concluded that the Act “does not require that all contributing areas be designated nonattainment, only the nearby areas.” *Id.* at 4. The agency explained that “[r]egional strategies, such as those employed in the Ozone Transport Region and EPA’s NO_x SIP Call are needed to address the long-range transport component of ozone nonattainment.” *Id.* In keeping with this understanding of the statute, the EPA declined to designate “super-regional” nonattainment areas, *see* Responses to Significant Comments on the State and Tribal Designation Recommendations for the 2008 Ozone NAAQS at 8–9 (Apr. 30, 2012) [hereinafter Response to Comments], and instead made more limited nonattainment designations in both Delaware and Connecticut, *see* Delaware Area Designations for the 2008 Ozone NAAQS

2; Connecticut Area Designations for the 2008 Ozone NAAQS
1.⁶

We evaluate the EPA's interpretation of a Clean Air Act provision under the familiar two-step *Chevron* framework. See *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2439 (2014) (citing *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984)). The first question—“whether Congress has directly spoken to the precise question at issue,” *Chevron*, 467 U.S. at 842—has previously been resolved by this Court. In *Pennsylvania Department of Environmental Protection v. EPA (PADEP)*, we held that the statutory term “nearby” in section 107(d) is ambiguous; indeed, we reached that conclusion in the course of addressing the precise argument that Delaware makes here. See 429 F.3d 1125, 1129–30 (D.C. Cir. 2005). In *Catawba County*, we reached the same conclusion. See 571 F.3d at 35 (noting that section 107(d) does not define “nearby,” and that it is “the kind[] of word[] that suggest[s] a congressional intent to leave unanswered questions to an agency’s discretion and expertise”).

Recognizing these precedents, Delaware and Connecticut conceded at oral argument that our analysis must be governed by *Chevron*’s second step, Oral Arg. Recording at 3:49–3:54, which requires us to ask only whether the EPA’s interpretation is reasonable, see, e.g., *PADEP*, 429 F.3d at 1130. But we have addressed that question once as well, also in *PADEP*, where we said that “*Chevron* requires that we defer to the agency’s reasonable interpretation of the term, and Delaware

⁶ Neither State challenges the designations of those areas as nonattainment, other than to contend that the designations should have covered much broader areas.

has given us no reason to think that EPA's interpretation is unreasonable." *Id.* We reach the same conclusion here.

First, the agency's interpretation of "nearby"—as presumptively including counties within the same metropolitan area as the violating county—falls readily within the dictionary definition of "nearby" as "close at hand; not far off; adjacent; neighboring." RANDOM HOUSE COLLEGE DICTIONARY 889 (rev. ed. 1980). By contrast, neither the dictionary nor common parlance would regard Missouri as "nearby" to Connecticut or Delaware, as the petitioners' proposals would require.

Second, the EPA's construction is consistent with the approach the agency has taken in prior designations proceedings—an approach that this Court has previously upheld as reasonable. *See PADEP*, 429 F.3d at 1127, 1129–30; 2008 Guidance at 3.

Third, the EPA's construction is consistent with the statutory scheme. The EPA selected the metropolitan area as the presumptive "nearby" area for its contribution analysis in part because the Congress itself chose the metropolitan area as the default boundary for ozone nonattainment areas classified as "serious," "severe," or "extreme." *See* 42 U.S.C. § 7407(d)(4)(A)(iv); 2008 Guidance at 3 n.5. The Congress' choice is certainly evidence that the legislature envisioned broad but relatively local nonattainment areas.⁷

⁷ At oral argument, the EPA made clear that it does not contend that its reading is the *only* permissible reading of the statute. Oral Arg. Recording at 30:01–30:59; *see also* 2008 Designations Rule, 77 Fed. Reg. at 30,090 (discussing the agency's "discretion" to interpret the term "nearby" in fixing the geographic scope of nonattainment areas).

As in *PADEP*, the petitioners argue that the EPA's interpretation is unreasonable because it fails to appreciate the role of ozone transport, and consequently yields designations that fail to include the true contributors to their nonattainment status. See *PADEP*, 429 F.3d at 1129–30. Delaware notes, for example, that 84 to 94 per cent of its ozone results from the contributions of other states, including states as far west as Missouri. See Delaware Reply Br. 4. Without emissions reductions from those states, petitioners argue, they cannot meet the 0.075 ppm standard. Thus, by failing to address the principal sources of their ozone pollution, the EPA's interpretation eliminates any possibility that they will attain the NAAQS.⁸

Although we are sympathetic to the petitioners' concerns, our role is not to decide whether *their* proposed interpretation is reasonable. Instead, the sole question before us is whether the EPA interpreted the term reasonably and consistently with the statute. See *PADEP*, 429 F.3d at 1130 (noting that, although a broader “construction of ‘nearby’ may well be sensible, *Chevron* requires that we defer to the agency's reasonable interpretation of the term”). Here, the EPA had already considered the problem the petitioners raised. Part of the rationale for using the metropolitan area as the starting point for the contribution analysis was to account for ozone transported from outside the violating county. See 2008

⁸ Delaware points to the isolated nonattainment zone of Sussex County as a particularly egregious example of the designations that the EPA's interpretation produced. Delaware Br. 12. But even if over 90 per cent of Sussex County's pollution comes from out-of-state sources, as Delaware asserts, the EPA found that no surrounding counties had the linkages necessary to justify a nonattainment designation under the agency's five-factor analysis. See Delaware Area Designations at 37–49.

Guidance at 3–4. Although this approach does not fully account for longer-range, interstate transport, the EPA has addressed that problem in regulations promulgated under other provisions of the Act. *See, e.g.*, Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (promulgating the Cross State Air Pollution Rule, commonly referred to as the Transport Rule).⁹ Although the petitioners recognize the EPA’s reliance on those other regulatory options, they maintain that they “have been less than successful” up to this point. Delaware Br. 6; *see also id.* at 9. We, however, must defer to the EPA’s reasonable judgment that regional strategies adopted pursuant to other statutory provisions specific to long-range ozone transport remain the appropriate means for addressing this problem. *See* 2008 Guidance at 4.

The petitioners note that our decision in *PADEP* rested in part upon the fact that there, Delaware had “offered no evidence that ‘in practice’ EPA will not enlarge a nonattainment area in response to [its then] eleven-factor analysis.” 429 F.3d at 1130. Indeed, in *PADEP*, Delaware had failed altogether “to produce an eleven-factor analysis.” *Id.* But we did not mean by this to suggest that, had Delaware produced the appropriate factor analysis, the EPA would have

⁹ The EPA promulgated the Transport Rule under 42 U.S.C. § 7410(a)(2)(D), which requires SIPs to prohibit air pollution that will “contribute significantly to nonattainment in, or interfere with maintenance [of the NAAQS] by, any other State.” Other provisions of the Act also address interstate transport. *See id.* § 7506a (providing for interstate transport commissions); *id.* § 7511c (establishing ozone transport region consisting of 11 states and the District of Columbia, which must comply with additional control measures).

been *required* to adopt an interpretation of “nearby” that included states as far away as those within the petitioners’ proposed nonattainment areas. The points discussed above—including the dictionary definition of “nearby” and the consistency of the EPA’s interpretation with the statute and its prior practice—strongly suggest that the EPA’s narrower interpretation would still be reasonable.

Nonetheless, if the petitioners had submitted a persuasive five-factor analysis establishing contributions from farther-away states, that would be relevant to our assessment of the reasonableness of the EPA’s refusal to enlarge the nonattainment area beyond its presumptive scope. In this case, however, although the petitioning States did submit technical analyses, they failed to demonstrate the requisite linkages under the EPA’s 2008 Guidance. *See, e.g.*, Delaware Response Attach. 2 at 5–7, 11–13 (disputing relevance of factors related to urbanization, traffic, and economic growth); *id.* at 14–15 (with respect to meteorology factor, describing long-range transport without describing weather patterns within the proposed 16-state nonattainment area). Hence, the petitioners did not show that the agency “will not enlarge a nonattainment area in response to” the (current) five-factor analysis, *PADEP*, 429 F.3d at 1130. Rather, the States’ analyses were simply insufficient to overcome the agency’s definitional presumption.

In sum, we conclude that the EPA’s final designations of Delaware and Connecticut counties are consistent with a reasonable interpretation of the Clean Air Act.¹⁰

¹⁰ Delaware also argues that the EPA acted inconsistently with the statute by only designating as nonattainment nearby areas that are “contributing to a violation,” rather than those that “contribute[] to ambient air quality” in a violating area, 42 U.S.C.

B. UINTA BASIN

Petitioner WildEarth Guardians (WildEarth) challenges the EPA's designation of Uinta Basin, Utah, as "unclassifiable." We find the EPA's designation rational and in accordance with the Clean Air Act, and we therefore deny WildEarth's petition.

1. Uinta Basin Background

The EPA requires every state to establish a network of regulatory monitoring stations to collect ozone air-quality data. *See* 40 C.F.R. pt. 58. The number of regulatory monitors required in an area depends, in part, on the area's population. *See id.* app. D. tbl.D-2. Areas with populations below 50,000 and many areas with fewer than 350,000 inhabitants require no regulatory monitors. *Id.* Many rural areas therefore lack monitors.

Uinta Basin, Utah, had no regulatory monitoring until April 2011. The pre-2011 absence of regulatory-air-quality monitors in Uinta Basin meant that, when the EPA in 2013 conducted the designation process for the 2008 NAAQS, the agency had regulatory data for Uinta Basin for only two years—2011 and 2012. The 2008 ozone NAAQS, however, reflect three-year averages of ozone levels. *See* 2008 Designations Rule, 77 Fed. Reg. at 30,089. Noting that "there are not yet three consecutive years of certified ozone monitoring data available [from Uinta Basin] that can be used

§ 7407(d)(1)(A)(i). Delaware Br. 12–13. As the EPA explained, however, its use of the phrase was simply shorthand for its contribution analysis; it did not represent a heightened standard. *Cf. ATK Launch Sys.*, 669 F.3d at 338–39 (rejecting the argument that the EPA applied a dissimilar standard when it variously used the terms "significant contribution" and "contribution").

to determine the area's attainment status," *id.*, the EPA designated the area as "unclassifiable," which the Clean Air Act defines as an area that "cannot be classified on the basis of available information as meeting or not meeting" the NAAQS, 42 U.S.C. § 7407(d)(1)(A)(iii).

Although no regulatory data exist for Uinta Basin prior to 2011, private companies working under consent decrees have been required to operate ozone air-quality monitors in Uinta Basin since 2009. See Letter from Robin Cooley, Counsel, WildEarth Guardians to Lisa P. Jackson, Adm'r, EPA 3 (July 19, 2012). Under the terms of those consent decrees, the private monitors must comply with many of the same requirements as regulatory monitors. See Consent Decree ¶¶ 80–81, *United States v. Kerr-McGee Corp.*, No. 1:07-cv-01034 (D. Colo. May 17, 2007). From 2009 to 2011, the private monitors provided raw data showing ozone levels significantly exceeding the 2008 ozone NAAQS. The EPA found the 2009 to 2011 private data insufficient to support a nonattainment designation.

2. The Private Monitoring Data Challenge

WildEarth argues that, in light of the private data, the EPA contravened the Act's requirements when it designated Uinta Basin as unclassifiable rather than nonattainment. We disagree.

The Act calls for the EPA to make designations "on the basis of available information." 42 U.S.C. § 7407(d)(1)(iii). We have repeatedly found similar language to be ambiguous when assessing whether to defer to an agency's construction. See *Catawba Cnty.*, 571 F.3d at 35, 38 (finding the phrase "based on air quality monitoring data" to be ambiguous); *Sierra Club v. EPA*, 356 F.3d 296, 305–06 (D.C. Cir. 2004) (finding the phrase "based on photochemical grid modeling" to

be ambiguous). The EPA therefore may interpret the statutory language as it sees fit, as long as its interpretation is reasonable. *Chevron*, 467 U.S. at 845. And even assuming the Act obligates the EPA to consider certain types of data, there would be no obligation for the agency to base its designations on data it reasonably considers to be unsound, at least if it “adequately explain[s] its reasons for rejecting . . . data” on which it declines to rely. *City of Waukesha*, 320 F.3d at 248. We evaluate the EPA’s reasons cognizant of the “extreme degree of deference” we owe an agency “when it is evaluating scientific data within its technical expertise.” *Catawba Cnty.*, 571 F.3d at 41.

The EPA reasonably explained that the private monitoring data afforded an insufficient basis for a nonattainment designation because the agency was unable to perform post-collection quality assurance checks on the data. In particular, the EPA lacked quality assurance data needed to verify and audit the private data. As the agency explained:

Quality assurance data consist, primarily, of biweekly single point quality control (QC) checks, used to assess the precision and bias a given instrument is displaying in its day-to-day measurements, and annual independent performance evaluations (audits) of equipment, which rely on independent staff and measuring systems to confirm that the monitors are operating as expected and required.

Letter from Lisa P. Jackson, Adm’r, EPA to Robin Cooley, Counsel, WildEarth Guardians 5 (Dec. 14, 2012) (denying reconsideration of Uinta Basin designation). The agency determined that, without audits or quality control checks, it

could not adequately verify the quality of the private data. That explanation comports with common sense and falls within the substantial deference accorded the EPA in evaluating the soundness of data available to it.

WildEarth presses several counterarguments, none of which we find persuasive. First, WildEarth observes that the consent decrees required the private monitors to operate in “substantial compliance” with 40 C.F.R. Part 58, the quality assurance requirements under which regulatory monitors operate. But “substantial compliance” is not “full compliance,” and the EPA could reasonably draw a distinction between the two. Moreover, data from regulatory monitors—which *must* be collected in compliance with 40 C.F.R. Part 58—undergo post-collection auditing and verification processes. *See, e.g.*, 40 C.F.R. pt. 58, app. A, § 3. Those post-collection processes could not be conducted for the private monitor data. Accepting WildEarth’s argument would require us to conclude that the EPA must apply *less stringent* post-collection validation requirements to data collected from private monitors in “substantial compliance” with the agency’s data-collection regulations than the agency applies to data collected from regulatory monitors in *actual* compliance with those regulations. We see no reason to embrace that counterintuitive result.

Second, WildEarth points out that the EPA has encouraged other federal entities to take notice of the private monitoring data. The EPA acknowledges that it argued, in a judicial proceeding supporting entry of the same consent decrees mandating the private monitoring, that the private monitors would provide data that would be “reliable and of good quality” and “useful in assisting regulators.” Resp’t’s Br. 57. And indeed the data have proven helpful to the EPA in other regulatory contexts. On the basis of the private data, for

example, the EPA informed the Forest Service that Uinta Basin ozone concentrations “exceed the NAAQS” and are a “serious problem.” Supp. JA 387.

We agree with WildEarth that an agency may be required to articulate why data are sufficiently reliable for one purpose but not for another. *See Cnty. of L.A. v. Shalala*, 192 F.3d 1005, 1022 (D.C. Cir. 1999). But the EPA has done so here. That the data may be sufficiently reliable to warrant identifying ozone as a serious issue for a Forest Service analysis under one statutory provision does not necessarily mean that the data are reliable enough to compel a nonattainment designation under a different statutory regime. To hold otherwise would require the EPA wholly to blind itself to potentially useful private data for *any* purpose if it were to consider that data insufficiently reliable for one purpose. There is no basis for constraining the agency in that way.

That the EPA partially relied on the private data in the course of this very designation process does not undercut that conclusion. While “unclassifiable” represents a single statutory designation, *see* 42 U.S.C. § 7407(d)(1)(A)(i)–(iii), the EPA further divided that classification into two sub-categories: “unclassifiable/attainment” and “unclassifiable.” *See* 2008 Designations Rule, 77 Fed. Reg. at 30,089. “Historically for ozone,” the EPA designates as “‘unclassifiable/attainment’” those areas for which “air quality information is not available because the areas are not monitored.” *Id.* at 30,090. But in Uinta Basin, the EPA instead designated the area “unclassifiable” after determining that the private monitoring “detected levels of ozone that exceed the NAAQS.” *Id.* at 30,089.

There is no arbitrariness in the EPA’s choice partially—but not fully—to rely on the private data. At the

outset, we note that the parties point us to no material differences between an “unclassifiable/attainment” and an “unclassifiable” designation, and we are aware of none. See 40 C.F.R. § 51.1100(g) (“Attainment area means, unless otherwise indicated, an area designated as either attainment, unclassifiable, or attainment/unclassifiable.”); cf. 42 U.S.C. § 7471 (instructing the EPA to give the same treatment to “unclassifiable” and “attainment” areas for SIP purposes). But given the EPA’s decision to create two different unclassifiable designations, we will assume *arguendo* that materially different regulatory burdens attend each designation. Even then, however, we agree with the EPA that it was reasonable to conclude that it would be inappropriate to label the Uinta Basin area “unclassifiable/attainment”: the private data, even if unverified, at least implied that a NAAQS violation was possible, even if not conclusively proven to the agency’s satisfaction. WildEarth, moreover, points to no other area for which private—but not regulatory—monitoring suggested a NAAQS violation. It thus appears that Uinta Basin differed from all other areas meriting an “unclassifiable/attainment” designation. We conclude that the EPA’s conclusion partially—but not fully—to credit the private data was reasonable and non-arbitrary, particularly in light of the “extreme deference” we owe the agency. See *Catawba Cnty.*, 571 F.3d at 41.

In sum, the EPA reasonably declined to rely on data that it considered of insufficient quality for designations purposes. With that conclusion, and having reviewed the remainder of WildEarth’s challenges and determined that they lack merit, we deny the group’s petition for review. See *Catawba Cnty.*, 571 F.3d at 52.

C. SIERRA CLUB

Petitioner Sierra Club challenges the EPA's refusal to use uncertified 2011 air-quality data during the designation process, a decision that resulted in 15 counties avoiding nonattainment designations. Finding the EPA's actions rational and in accordance with the Clean Air Act, we deny Sierra Club's petition.

1. Sierra Club Background

In furtherance of the Clean Air Act's " 'core principle' of cooperative federalism," *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1602 n.14 (2014), states take the lead in the collection of air-quality data. In doing so, states operate regulatory monitors under an array of "[e]xhaustive technical specifications" promulgated by the EPA. *Catawba Cnty.*, 571 F.3d at 30; see 40 C.F.R. pt. 58. States "edit[]" and "validate[]" the collected data pursuant to the EPA-mandated procedures and report it to the EPA according to a prescribed schedule. See 40 C.F.R. § 58.16(b)–(c). Data collected in each quarter must be "edited, validated and entered" into the EPA's system within ninety days of the end of the quarter. *Id.* "For example, the data for the reporting period January 1–March 31 are due on or before June 30 of that year." *Id.* § 58.16(b). Post-auditing, the data are still considered "uncertified" when submitted to the EPA.

While uncertified data from the first quarter (*i.e.*, January 1 to March 31) become available to the EPA as of June 30, those data remain subject to continuing audits and edits by states. The data collection process reaches completion only when a state provides final certification that the necessary "ambient concentration and quality assurance data are completely submitted . . . and . . . are accurate." *Id.* § 58.15(a). The EPA requires certification by May 1 of the

following calendar year for all data collected in the previous year. *Id.* § 58.15(a)(2). States therefore had to certify their 2011 data by May 1, 2012.

As explained, because the 2008 ozone NAAQS represent a three-year average, the EPA needs air-quality data from three sequential calendar years to classify an area as attainment or nonattainment (as opposed to unclassifiable). *See* 2008 Designations Rule, 77 Fed. Reg. at 30,089. In the designation process for the 2008 NAAQS, the EPA gave each state a choice between two options: (i) early-certify 2011 data by February 29, 2012, in which event the EPA would consider 2009 to 2011 data for the designation process for that state (Option One); or (ii) decline to early-certify (and stick to the normal May 1 certification deadline), in which event the EPA would use 2008 to 2010 data for designations in that state (Option Two). *See id.* at 30,091.

At least eight states selected Option Two. Sierra Club identifies over one dozen counties within those eight states for which the choice between Option One and Option Two (*i.e.*, the choice between designations based on 2008 to 2010 data versus 2009 to 2011 data) allegedly meant that those counties avoided nonattainment designations. *See* Letter from Robert Ukeiley, Counsel, Sierra Club to EPA, Re: Designations for the 2008 Ozone NAAQS Docket ID No. EPA-HQ-OAR-2008-0476 at 3 tbl.1 (Feb. 3, 2012). Sierra Club contends that the EPA was compelled to use 2009 to 2011 data for those areas. We disagree and conclude that the EPA's actions were non-arbitrary.

2. Uncertified Data Challenge

Sierra Club first notes that, at the time of the designation process, the EPA possessed uncertified 2011 data for all areas. Because the agency's regulations require the submission of

uncertified data within ninety days of the end of the quarterly reporting period, *see* 40 C.F.R. § 58.16(b), the EPA had all 2011 uncertified data in its possession by the end of March. It should have used that data, Sierra Club argues, notwithstanding the lack of certification. We are unpersuaded.

While the uncertified data must undergo preliminary auditing and quality checks before submission to the EPA, *see id.* § 58.16(c), those preliminary quality control measures are just that—preliminary. As the EPA explains, the data remain subject to continuing checks and revisions by the states until final certification. Resp’t’s Br. 66. Accordingly, the EPA reasonably “does not presume that data [validation and auditing] processes are complete and accurate until” the final data certification. *Id.* at 46. Mindful of the significant deference we owe the EPA in matters concerning data quality or sufficiency, *see Catawba Cnty.*, 571 F.3d at 41, we see no basis for second-guessing the EPA’s considered judgment on the issue.

Sierra Club next argues that, even if the agency acted reasonably in refusing to rely on uncertified data, it acted arbitrarily in declining to delay the designation process until all states had certified their 2011 data by the standard May 1 deadline. After all, Sierra Club notes, the consent decree under which the EPA conducted the designation process allowed the agency until May 31, 2012, to promulgate the final designations. 2008 Designations Rule, 77 Fed. Reg. at 30,091.

Sierra Club, however, identifies no authority obligating the EPA to wait until the last possible minute to promulgate its designations. And in this case, doing so would have made little sense. The EPA entered into the consent decree

precisely to settle allegations that it had *already* missed the Act's statutory deadlines for promulgating the 2008 ozone NAAQS designations. *See id.* Accepting Sierra Club's position would effectively call for the EPA to infringe the Act's deadlines still further. In any event, as the EPA explained in denying Sierra Club's petition for reconsideration of the designations after the May 1, 2012, certification deadline passed and 2009 to 2011 data were fully certified and available to the EPA, "[n]ew technical data become available on a regular basis." Letter from Lisa P. Jackson, Adm'r, EPA to Robert Ukeiley, Counsel, Sierra Club enclosure p.2 (Dec. 14, 2012). The EPA reasonably concluded that delay "to consider such new information would result in a never-ending process in which designations are never finalized." *Id.* Indeed, Sierra Club itself has already filed a petition for reconsideration based on 2010 to 2012 data. *See* Sierra Club Reply Br. 8. The EPA could reasonably conclude that the process must end at some point. We conclude that the agency did not act arbitrarily in ending it here. *Cf. Catawba Cnty.*, 571 F.3d at 51 ("New York's underlying complaint is that the iterations should have continued, perhaps *ad infinitum*. But such a process is inconsistent with the CAA: Congress imposed deadlines on EPA and thus clearly envisioned an end to the designations process.").

With that conclusion, and having reviewed the remainder of Sierra Club's challenges and determined that they lack merit, we deny the group's petition for review. *See Catawba Cnty.*, 571 F.3d at 52.

D. MISSISSIPPI

The State of Mississippi challenges the EPA's use of 2008 to 2010 data to classify the counties within the Memphis, Tennessee area, an analysis that resulted in a nonattainment

designation for part of DeSoto County, Mississippi. Because we conclude that the EPA's actions were rational and in accordance with the Clean Air Act, we deny Mississippi's petition for review.

1. Mississippi Background

In Mississippi and elsewhere, the EPA conducted the designations for metropolitan areas through a two-step process. First, the EPA examined air-quality data from all regulatory monitors in a metropolitan area. If no monitors in the area showed a NAAQS violation, no county in the area would be designated nonattainment. In that event, there would be no second step. But if a single monitor from the area showed a NAAQS violation, the county housing the violating monitor would be designated nonattainment. *See* 2008 Guidance at 3–4. In that case, the EPA would proceed to the second step for that metropolitan area.

The second step took account of the fact that the Act mandates nonattainment designations not only for areas themselves exceeding the relevant NAAQS, but also for all areas that “contribute[]” to a NAAQS violation in a “nearby area,” even if the “contributing” area’s air quality—considered alone—meets the NAAQS. *See* 42 U.S.C. § 7407(d)(1)(A)(i); 2008 Guidance at 3–4. In the second step, the EPA assessed each county in a metropolitan area with a violating monitor on a case-by-case basis to determine if the county contributed to the identified violation. If, on the basis of a multi-factor test, the EPA determined that a county “contributed” to the NAAQS exceedance at the violating monitor in another county, the EPA also designated the contributing county as nonattainment. We have repeatedly upheld multi-factor contribution analyses as consistent with the Act’s designation process under section 107—a conclusion that Mississippi does not challenge here.

See, e.g., ATK Launch Sys., 669 F.3d 330; *Catawba Cnty.*, 571 F.3d 20. *See generally supra* § II.

In 2011 and 2012, the EPA conducted that two-step designation process for the Memphis CBSA. The Memphis CBSA consists of several counties in Tennessee (Shelby, Tipton, and Fayette), Mississippi (DeSoto, Marshall, Tate, and Tunica), and Arkansas (Crittenden). *See* Office of Mgmt. & Budget, OMB Bulletin No. 10-02, Update of Statistical Area Definitions and Guidance on Their Uses 40 (Dec. 1, 2009). At the first step, the EPA evaluated 2008 to 2010 certified air-quality data and detected a NAAQS violation at the monitor in Shelby County, Tennessee. Proceeding to the second step, the EPA conducted the multi-factor analysis and determined that part of DeSoto County, Mississippi, contributed to the Shelby County violation.

On December 9, 2011, the EPA notified Mississippi that it planned to designate part of DeSoto County as nonattainment when it promulgated the final designations in 2012. The EPA invited Mississippi (and all other states) to provide to the agency by February 29, 2012, any additional information for consideration in the final designation process—including any early-certified 2011 data. *See* Memphis, TN-MS-AR Area Designations for the 2008 Ozone NAAQS 3–4 [hereinafter Memphis Area Designations]. Mississippi responded to the EPA's multi-factor analysis with its own multi-factor analysis, disputing the EPA's conclusion that DeSoto County contributed to any violation in Shelby County. Additionally, Mississippi and Tennessee—two of the three states in the Memphis CBSA—early-certified their 2011 data before the February 29, 2012, deadline. Arkansas—the third state in the Memphis CBSA—declined to early-certify any 2011 data.

On May 21, 2012, the EPA published its final designations for the Memphis CBSA. At the first step of the two-step designation process, the agency used 2008 to 2010 data and again identified a violation at the Shelby County monitor. The EPA then moved to the second step and, after considering Mississippi's multi-factor analysis and updating its own analysis accordingly, reiterated its original conclusion that part of DeSoto County contributed to the Shelby County violation. The agency therefore designated part of DeSoto County as nonattainment. See *Memphis Area Designations* at 16. Mississippi claims that designation was arbitrary and capricious. We disagree.

2. Challenge to the First Step of the Designation Process

First, Mississippi argues that the EPA acted arbitrarily in using 2008 to 2010 data for the first step of the two-step designation process (*i.e.*, identifying violating monitors within a CBSA) even though the EPA possessed early-certified 2011 data from Tennessee. The 2009 to 2011 data showed no NAAQS violation at the Shelby County monitor. Accordingly, Mississippi argues, no violation should have been identified at the first step of the two-step designation process. But the EPA declined to evaluate Shelby County using the early-certified 2009 to 2011 data, instead using the 2008 to 2010 data. True, the EPA must adequately explain why it declined to rely on the early-certified 2011 data. See *City of Waukesha*, 320 F.3d at 248. But the agency did so.

At the time of the final designations, the EPA had in its possession early-certified data from Mississippi and Tennessee, but not from Arkansas. In the first step of its two-step designation process, the EPA evaluates all air-quality monitors in a metropolitan area. Without 2011 Arkansas data,

the EPA did not have a full set of 2011 data for the Memphis CBSA. The EPA only had data from different time horizons—2008 to 2010 data for the Arkansas portion of the Memphis CBSA, and 2009 to 2011 data for the Tennessee and Mississippi portions of that same CBSA. The agency declined to rely on this mismatched dataset. Instead, the EPA opted to rely on the most recent matched dataset in its possession: the complete set of 2008 to 2010 data. We see no reason—and Mississippi provides none—to declare irrational the EPA’s conclusion that comparing data from the same time period would be more appropriate than analyzing data from different time periods in the same evaluation process. Cognizant of the substantial deference we owe the EPA in that highly technical evaluation, *see Catawba Cnty.*, 571 F.3d at 41, we find the EPA was entitled to rely on a matched dataset instead of a mismatched one.

Even assuming the EPA’s choice to rely only on matched datasets for the Memphis CBSA was reasonable (as we conclude it to be), Mississippi argues that the EPA’s approach nonetheless was arbitrary because the agency required a matched dataset for Memphis-area designations but allegedly relied on a mismatched dataset for Chicago-area designations. “[I]nconsistent treatment,” we have found, is a “hallmark of arbitrary agency action.” *Id.* at 51. There was no inconsistent treatment here, however. In both Chicago and Memphis, the EPA relied only on matched datasets in the designation process.

With regard to the Chicago metropolitan area, Illinois early-certified its 2011 data. Wisconsin and Indiana—portions of which also lie in the Chicago metropolitan area—did not early-certify. Illinois’s early-certified data showed a violating monitor in the Chicago area. At the first step of the Chicago-area designation

process, the EPA relied on Illinois's early-certified data, noted the violation, and thus proceeded to the second step's multi-factor contribution analysis for all Chicago-area counties.

Mississippi argues that, because the EPA only possessed early-certified data from Illinois, it used a mismatched dataset for Chicago's designations. Consequently, Mississippi claims that the EPA took different approaches to dataset selection between Memphis and Chicago. Mississippi's argument rests on a flawed understanding of the EPA's designation process.

At the first step of the process, a single violating monitor suffices to conclude the analysis and move to the second step. Though only Illinois had early-certified its data, that data showed a violating monitor. That was enough to terminate the first step of the process and move to the second step. It thus became irrelevant whether Wisconsin or Indiana data showed any violations: the EPA would proceed to the second step of the analysis regardless, based on the Illinois violation alone. The EPA therefore had a *sufficient* matched dataset of 2009 to 2011 data (albeit data from only one state, Illinois) to proceed to the second step of the designation process using 2009 to 2011 data alone. By contrast, the EPA had no matched dataset of 2009 to 2011 data in the Memphis area sufficient to complete the first step of the two-step process using that data alone. While data showing a *single* violating monitor are enough to end the first step and proceed to the second step, data showing *all* monitors in compliance would be needed to *avoid* proceeding to the second step's multi-factor analysis—*i.e.*, to terminate the two-step process at the first step.

As a result, when Arkansas declined to early-certify its 2011 data, the EPA could not determine if the entire Memphis CBSA showed NAAQS compliance at all monitors for the

2009 to 2011 period; the agency lacked a sufficient 2009 to 2011 matched dataset with which to do so. The EPA then relied on the most recent matched dataset sufficient to complete the first-step analysis (the 2008 to 2010 data), just as the EPA selected the most recent matched dataset sufficient for the first-step analysis of the Chicago area. The EPA therefore acted in a consistent manner in both areas, each time using the most recent matched datasets sufficient to complete the first step of the two-step designation process.

3. Challenge to the Second Step of the Designation Process

Mississippi also challenges the EPA's application of the second step of the designation process. The EPA acted arbitrarily, the state argues, in applying the multi-factor test and concluding that DeSoto County contributed to the Shelby County violation. We find no reason to disturb the EPA's analysis.

First, Mississippi challenges the EPA's differing articulations of the multi-factor test. As pronounced in the 2008 Guidance, the EPA originally conceived of that test as consisting of nine factors. In making the final designations, the EPA applied a five-factor test. *See supra* § I.B–C. The state argues that the EPA's "consolidat[ion]" of the test from nine to five factors was arbitrary and capricious. State & County Br. 15. We disagree.

At the outset, we do not necessarily agree that the EPA was required to adhere to the 2008 Guidance. The 2008 Guidance did not purport to be a legislative rule, and it explicitly provided that it was "not binding on states, tribes, the public or the EPA." 2008 Guidance at 4; *cf. Catawba Cnty.*, 571 F.3d at 33–34 (materially similar guidance for PM_{2.5}

NAAQS designations did not “create or modify legally binding rights”).

But even if we assume that the 2008 Guidance was binding, the EPA did not deviate from it in the final designations. The “consolidation” of the factors was just that—a consolidation. It effected no deletion. During the final designation process, the agency simply grouped several of the 2008 Guidance factors into a single factor, the consideration of which necessarily entailed consideration of the multiple 2008 Guidance factors now residing within it. We find no examples of a final designation that failed to consider a factor identified in the 2008 Guidance. With “no bright line for any of the factors,” and with each factor “weighted considering the unique circumstances of each nonattainment area,” Response to Comments at 61, the consolidation worked no substantive change and thus affords no basis for setting aside the EPA’s analysis.

Second, Mississippi challenges the EPA’s specific application of the multi-factor test to DeSoto County. We accord the EPA “extreme deference” in applying that test, and will overturn the EPA’s designations only if the agency applied the test “so erroneously in a particular case that it could not have reasonably concluded that a county was contributing to nearby violations.” *Catawba Cnty.*, 571 F.3d at 40–41. This is not such a case. The agency provided data showing that DeSoto County’s NO_x and SO₂ (ozone precursors) emissions were the second-highest in the Memphis CBSA. Memphis Area Designations at 8. The county also had the second highest number of workers commuting to counties with violating monitors, the second highest number of vehicle miles traveled in the CBSA, and the highest percentage population growth over the last decade. Those factors led the EPA to conclude that DeSoto County was integrated with Shelby

County in a way that indicated ozone contribution. *Id.* at 9–10. Additionally, meteorological analysis at the Shelby County monitor showed weather patterns characterized in part by winds blowing in from DeSoto County. *Id.* at 12. On those bases, the EPA reasonably concluded that DeSoto County contributed to the Shelby County violation.

Mississippi principally argues that significant “commerce activity” occurring outside of DeSoto County (including interstate highway traffic, rail and barge transportation, diesel fuel sales, and air traffic) means that other counties contribute to the Shelby County violation more than DeSoto County does—and that, because some of those counties avoided nonattainment designations, DeSoto County should, too. Miss. Dep’t of Env’tl. Quality, Air Div., 2008 Ozone Standard Designation Recommendation for DeSoto County, Mississippi 8–12 (Feb. 2012). But the EPA considered that argument and determined in a well-reasoned analysis that the data from Mississippi was only one consideration in the designation process. *See* Response to Comments at 97; *see also* Memphis Area Designations 1–31. The EPA concluded that DeSoto County *did* contribute to Shelby County’s violation in light of the many other factors the agency considered. Memphis Area Designations at 16.

Looking at the same data, Mississippi would simply reach a different conclusion. We, however, do not sit to second-guess the EPA’s conclusions in an area identified by the Congress as within the agency’s technical expertise. We only ask if the EPA “considered all relevant factors and articulated a rational connection between the facts found and the choice made.” *ATK Launch Sys.*, 669 F.3d at 336 (internal quotation marks omitted). We conclude that it did.

With that conclusion, and having considered Mississippi's other challenges and determined that they lack merit, we deny the state's petition for review. *See Catawba Cnty.*, 571 F.3d at 52.

E. LAKE & PORTER COUNTIES, INDIANA

Petitioner Indiana challenges the designation of two of its counties as nonattainment. According to Illinois's certified 2009 to 2011 data, the monitoring site at Zion, Illinois exceeded the NAAQS by 1 part per billion (ppb). *See* Chicago-Naperville, Illinois-Indiana-Wisconsin Area Designations for the 2008 Ozone NAAQS at 7–8 [hereinafter Chicago Area Designations]. Zion is about sixty miles from the Indiana border and, like the Indiana counties at issue here, belongs to the Chicago-Naperville-Michigan City CSA. Following the 2008 Guidance, the EPA presumed that all counties in this CSA should be designated as nonattainment areas due to the Zion violation, and then conducted its five-factor analysis. The agency preliminarily concluded that three Indiana counties—Lake, Porter, and Jasper—should be included in the nonattainment area.

In response to the EPA's 120-day letter, Indiana pointed to multiple asserted flaws in the EPA's analysis. Most relevant here, it said that the agency had failed to account for the impact of a recent statutory change to Illinois's vehicle emissions testing program. It also maintained that the agency's meteorological analysis suffered from multiple weaknesses and inconsistencies.

The EPA ultimately reversed its designation of Jasper County, but finalized the nonattainment designations of Lake and Porter Counties. *Chicago Area Designations* at 21.

Indiana now challenges those nonattainment designations as arbitrary and capricious.

1. Challenge Regarding Illinois's Vehicle Inspection Change

First, Indiana challenges the EPA's position regarding Illinois's statutory change. After a prior nonattainment designation, Illinois had established a vehicle inspection and maintenance program that covered all model years beginning in 1968.¹¹ In 2006, however, Illinois exempted vehicles with model years between 1968 and 1995 from the testing requirements. See 625 Ill. Comp. Stat. 5/13C-15(a)(6)(L) (2012). Indiana maintains that it was the increase in vehicle emissions accompanying this exemption that directly caused the violation at the Zion monitor. Moreover, it contends that this legislative change amounted to an intentional violation of Illinois's SIP.

As the EPA points out, we made clear in *Catawba County* that a "contributing" county need not be the but-for cause of a violation in order to warrant a nonattainment designation. Resp't's Br. 94; see *Catawba Cnty.*, 571 F.3d at 39 ("[E]ven were we to think that 'contribute' unambiguously means 'significantly contribute,' we still disagree that 'significantly contribute' unambiguously means 'strictly cause.'"). And here, regardless of Illinois's statutory change, the EPA's five-factor analysis demonstrated that both Lake and Porter

¹¹ See Approval and Promulgation of Air Quality Implementation Plans; Illinois; Motor Vehicle Inspection and Maintenance, 64 Fed. Reg. 8,517, 8,519 (Feb. 22, 1999); Approval and Promulgation of Air Quality Plans; Illinois; Post-1996 Rate of Progress Plan for the Chicago Ozone Nonattainment Area, 65 Fed. Reg. 78,961, 78,967–68 (Dec. 18, 2000).

Counties contributed to the Zion monitor. Chicago Area Designations at 6–21.¹²

The alleged illegality of Illinois’s statutory change does not affect our conclusion. The Clean Air Act offers other avenues for addressing a State’s failure to comply with its SIP. In particular, the EPA Administrator can call for a SIP revision after “find[ing] that the applicable implementation plan for any area is substantially inadequate” to comply with the NAAQS. 42 U.S.C. § 7410(k)(5). The EPA declined to do so here and, instead, recently approved the Illinois change.¹³ Indiana has since petitioned the Seventh Circuit to review the EPA’s approval. See EPA 28(j) Letter (Oct. 22, 2014). That is the appropriate forum for challenging the Illinois change, which in no way diminished the contribution of the Indiana counties.

¹² Indiana protests that there likely would have been no violation at all at the Zion monitor if it were not for the emissions resulting from the statutory change. That argument is merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*. In any event, the argument is not supported by the Indiana modeling analyses upon which it is based. See Letter from Ind. Dep’t of Env’tl. Mgmt. to EPA, Enclosure 1 at 27–30 (Apr. 13, 2012). The first analysis concluded only that the change in Illinois’s program contributed 0.2 ppb to the Zion violation—not enough to account for the 2009 to 2011 exceedance of 1 ppb. The second analysis rested on a factual premise that the State never adequately explained: that the statutory change caused the emission reduction benefits of Illinois’s vehicle emissions testing program to decrease by 35 per cent.

¹³ See Approval and Promulgation of Air Quality Implementation Plans; Illinois; Amendments to Vehicle Inspection and Maintenance Program for Illinois, 79 Fed. Reg. 47,377 (Aug. 13, 2014).

2. Challenge to the EPA's Response to Comments

Next, Indiana argues that the EPA failed to adequately respond to its comments about the impact of Milwaukee, Wisconsin's emissions on the violation at the Zion monitor. According to the source apportionment modeling submitted by Indiana, the Milwaukee area contributed over 5 ppb to the Zion violation, while Lake, Porter, and Jasper Counties contributed 4 ppb, 2 ppb, and 0.5 ppb, respectively. See Letter from Ind. Dep't of Env'tl. Mgmt. to EPA, Enclosure 1 at 13–14 (Apr. 13, 2012). This, Indiana maintains, produced the “inconsistent and unfounded” result of nonattainment designations for the Indiana counties but an attainment designation for the Milwaukee area. *Id.* at 14.

As an initial matter, we note that, because the Milwaukee area is not a single county but rather is a metropolitan area made up of five counties, Indiana's argument is premised on an apples-to-oranges comparison. More important, we have no basis for finding the EPA's designations inconsistent given that Indiana's modeling—which was limited to meteorological linkages and therefore fell short of a full analysis—did not establish that Milwaukee “contributed to” the Zion violation under the agency's five-factor analysis. By contrast, after conducting its full five-factor analysis, the EPA found that Lake and Porter Counties did contribute. Accordingly, the EPA's determination regarding the Milwaukee metropolitan area was neither unreasonable nor inconsistent with its determination regarding the Indiana counties.

We also find that the EPA did adequately respond to Indiana's comments about its modeling results, although without mentioning Milwaukee specifically. Indeed, the modeling was one of the factors that led the EPA to reconsider its designation of Jasper County. See Chicago Area

Designations at 21 (describing Jasper County's 0.5 ppb contribution as "not significant"). But the EPA simply disagreed with Indiana's premise that 2 ppb and 4 ppb were insufficient contributions when considered as part of the five-factor test, for reasons that were reasonable and well explained. *See id.* at 18 ("In keeping with EPA's ozone contribution levels used to select states that should be covered in regional emission control programs, 2 ppb to 4 ppb ozone concentration contributions are considered to be significant ozone contributions.").

3. The Remaining Challenges

Finally, we briefly consider Indiana's remaining arguments. First, the record does not support Indiana's claim that the EPA improperly relied on late-submitted data from Wisconsin's Chiwaukee Prairie monitor, rather than relying solely on the Zion monitor data, in making the contribution determinations regarding the Indiana counties. *See Chicago Area Designations* at 8 (noting that the EPA considered the Wisconsin data in determining whether Kenosha County, Wisconsin (and not the Indiana counties) should be included in the Chicago nonattainment area); *id.* at 21–22 (describing bases for Lake, Porter, and Kenosha County designations). Second, the EPA did not fail to adequately explain why it used some 2006 to 2008 weather data in conducting the contribution analysis. The agency explained that historical data provided a "general conceptual model to explain the development and transport of high ozone levels in this area." Addendum to Response to Comments at 7 (May 31, 2012); *see also* EPA Response to Indiana Pet. for Reconsideration 3. That explanation is deserving of the deference that we give to the EPA's "evaluati[on] [of] scientific data within its technical expertise," *Catawba Cnty.*, 571 F.3d at 41 (quoting *City of Waukesha*, 320 F.3d at 247).

In sum, we reject Indiana's contention that the EPA's designations of Lake and Porter Counties are arbitrary or capricious.

F. WISE COUNTY, TEXAS

Petitioners State of Texas; Wise County, Texas; Texas Commission on Environmental Quality; Devon Energy Corporation; Targa Resources Corporation; the Texas Pipeline Association; and the Gas Processors Association (collectively, Texas Petitioners) challenge the EPA's designation of Wise County as nonattainment. They make several claims, including that the EPA subjected Wise County to arbitrarily disparate treatment, violated the U.S. Constitution and acted beyond its authority under the Clean Air Act. For the reasons discussed below, however, we do not disturb Wise County's nonattainment designation.

1. Wise County Background

Wise County is one of 22 counties in and around the Dallas–Fort Worth metropolitan area, which reports some of the most severe NAAQS violations in the country. Although Wise County has no monitor of its own, it borders several counties with a total of seven violating monitors, the closest of which reports ambient ozone levels that exceed the 2008 NAAQS by 0.010 ppm. Moreover, because Wise County falls within the CSA of Dallas–Fort Worth, it is presumptively included within the nonattainment area.

Despite Wise County's presumptive inclusion in the Dallas–Fort Worth nonattainment area, the EPA designated it as attainment when it updated the ozone NAAQS in 1997. For this reason, Texas did not include Wise County among the nine Dallas–Fort Worth counties it recommended for nonattainment status when it submitted its initial designations

to the EPA in March 2009.¹⁴ On December 9, 2011, the EPA informed Texas that it planned to include Wise County in the Dallas–Fort Worth nonattainment area due to its “comparatively high emissions” and “close proximity . . . to violating monitors.” See Texas Area Designations for the 2008 Ozone NAAQS at 13 [hereinafter Preliminary Dallas–Fort Worth Area Designations].

The EPA redesignated Wise County based on the five-part “weight of the evidence analysis” articulated in the 2008 Guidance.¹⁵ See *id.* at 1–2. The second and third factors—emissions data and meteorology—factored prominently in the EPA’s decision. See *id.* at 13. As for emissions, the EPA concluded that oil-and-gas collection and production in the Barnett Shale reservoir—a gas-rich geological formation covering a significant portion of Wise County—resulted in Wise County’s inclusion among the eight highest emissions-producing counties in the Dallas–Fort Worth area.¹⁶

As for meteorology, although historic wind patterns in the Dallas–Fort Worth area suggest that air does not normally move from Wise County to counties with monitors registering

¹⁴ Initially, Texas based its recommended designations on air-quality data from 2005 to 2007. On October 31, 2011, Texas updated its initial designations with certified air-quality data from 2008 to 2010.

¹⁵ As noted above, see *supra* § I.B–C, the 2008 Guidance initially established a nine-part test but the EPA subsequently collapsed those nine factors into five.

¹⁶ Specifically, Wise County had the fourth highest level of VOC emissions among nineteen counties in the Dallas–Fort Worth area and the sixth highest level of NO_x emissions. Preliminary Dallas–Fort Worth Area Designations at 6 tbl.3.

NAAQS violations, the EPA concluded that Wise County was upwind of the monitors on days when ozone levels at the monitors peaked. See Preliminary Dallas–Fort Worth Area Designations at 10. In reaching this conclusion, the EPA used the National Oceanic and Atmospheric Administration’s Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) model instead of relying solely on historic wind patterns in the Dallas–Fort Worth area. See *id.* HYSPLIT charts the path, or “back trajectory,” that air takes before it collects in a certain area. See *id.* According to the EPA, HYSPLIT modeling “is specifically designed to give an estimate of the probable path a parcel of air travels in reaching a given location at a given time” and is particularly illuminating for an area like Wise County, which has “light and variable” wind patterns. Response to Comments at 59–60.

After the EPA notified Texas that it planned to include Wise County in the Dallas–Fort Worth nonattainment area, numerous individuals and organizations submitted comments urging the EPA to reconsider its Wise County designation. One commenter insisted that other Texas counties were more responsible than Wise County for the NAAQS violations in the Dallas–Fort Worth area. Others argued that the EPA’s use of HYSPLIT modeling was arbitrary and capricious because, when designating other areas of the country, the EPA relied solely on historic wind patterns. According to these commenters, if the EPA had done the same with Wise County, it would not have designated Wise County as nonattainment because, according to historical wind patterns in the Dallas–Fort Worth area, Wise County was downwind of violating monitors more than 95 per cent of the time.

For its part, Petitioner Texas Commission on Environmental Quality (Texas Commission) submitted its own data based on photochemical grid source apportionment

modeling. Source-apportionment modeling helps determine the potential future impact of an emissions source area (such as Wise County) on downwind monitors by “keep[ing] track of the origin of the [ozone] precursors creating the ozone.” Industrial Br. 7. It does so by combining “the meteorology/transport of air parcels during high ozone days with the emissions of [a] specific area[.]” (here, Wise County), “to evaluate potential impact on ozone levels.” Dallas-Fort Worth, Texas Final Area Designations for the 2008 Ozone NAAQS at 16 [hereinafter Final Dallas–Fort Worth Area Designations]. Although the EPA does not typically perform source-apportionment modeling during the NAAQS designation process, it “has used it in the past for large-scale rulemakings, such as the Clean Air Interstate Rule and Cross State Air Pollution Rule” and it considers source-apportionment modeling data if a state submits it. See Resp’t’s Br. 126. According to the Texas Petitioners, source-apportionment modeling suggests that Wise County emissions had only a negligible impact on the monitors registering NAAQS violations in the Dallas–Fort Worth area.

On April 30, 2012, the EPA issued its omnibus Response to Comments, many of which addressed the objections to the Wise County designation. The EPA defended HYSPLIT modeling as an “excellent tool[.]” that it generally “prefer[s] over more basic assessments of wind speed and direction.” Response to Comments at 59. The EPA found HYSPLIT modeling to be a more precise measure of wind patterns than historic data, which data, according to the agency, is “potentially misleading in cases where wind speeds are light and variable, or vary substantially across the location of the meteorological observation and the monitored high ozone concentrations.” *Id.* These conditions existed in the Dallas–

Fort Worth area.¹⁷ Although the EPA acknowledged it could not always use HYSPLIT modeling, it nonetheless declined to ignore HYSPLIT data “where the information is available, even if the information is not available in all areas.” Response to Comments at 59.

Along with its omnibus responses, the EPA issued its Final Dallas–Fort Worth Area Designations, which again applied the five-factor test. In that document, the EPA addressed the source-apportionment modeling submitted by the Texas Commission. The EPA took issue with the model’s methodology and made several amendments to it.

First, the EPA faulted the Texas Commission for not using data from an entire ozone season in its model. To account for this omission, the EPA examined not only the *average* (i.e., relative) impact of Wise County emissions on Dallas–Fort Worth monitors but also the *absolute* (i.e., maximum) impact of the emissions. See Final Dallas–Fort Worth Area Designations at 17. The average/relative approach advocated by the Texas Commission averaged the impact that Wise County emissions might have on the monitors on all days when the monitors were expected to exceed the ozone NAAQS. As a practical matter, averaging the impact of Wise County emissions meant that the Texas Commission’s model accounted for days on which wind patterns were not expected to move air pollutants from Wise County to the violating monitors. According to the EPA, the Texas Commission’s average approach had “the effect of masking the impacts that

¹⁷ See Final Dallas–Fort Worth Area Designations at 14 (emphasizing that HYSPLIT modeling is especially appropriate for Wise County because Dallas–Fort Worth area “is generally characterized as having ozone exceedances with lower wind speeds and winds from many directions”).

occur on days when the wind *does* flow from Wise County to violating monitors,” an imprecision that was aggravated by the model’s limited dataset. *See* Resp’t’s Br. 136 (emphasis added). To account for this imprecision, EPA chose to look at the “direct,” or “absolute,” predicted effect that Wise County emissions would have on violating monitors rather than the average effect they were expected to have.

Second, the EPA noted that the Texas Commission’s source-apportionment model under-predicted peak ozone levels in the Dallas–Fort Worth area by a range of 0.005 to 0.020 ppm. As a practical matter, the under-prediction meant that the Texas Commission’s model underestimated the number of days that Wise County contributed to NAAQS violations. To compensate therefor, the EPA examined the impact of Wise County emissions not only on days when the monitors exceeded the ozone NAAQS threshold of 0.075 ppm, but also on days when the monitors reported ozone levels in excess of 0.070 ppm.

After making these adjustments, the EPA reinterpreted the data from the Texas Commission’s source-apportionment model and concluded that it in fact *supported* including Wise County in the Dallas–Fort Worth nonattainment area. *See* Final Dallas–Fort Worth Area Designations at 20. Specifically, the EPA concluded that Wise County emissions (1) “resulted in 6 occurrences (over 4 days) of an impact of more than 0.75 ppb days” on Dallas–Fort Worth area monitors; (2) “had even larger impacts of up to 5 ppb on the Eagle Mountain Lake monitor,” a monitor one-half mile from the Wise County border that reported particularly severe NAAQS violations; and (3) “resulted in 9 occurrences (over 5 days) [causing] impacts of more than 0.75 ppb [to] occur[] at” Dallas–Fort Worth monitors. *See id.* For these reasons, the

EPA maintained its inclusion of Wise County in the Dallas–Fort Worth nonattainment area.

Dozens of individuals and organizations filed petitions for reconsideration of the EPA’s Wise County nonattainment designation, including the Texas Commission and the other Texas Petitioners. On December 14, 2012, the EPA denied each petition for reconsideration. Before us, the Texas Petitioners’ challenges to the EPA’s Wise County designation are grouped as follows: (1) The EPA’s use of HYSPLIT Modeling and its re-evaluation of the Texas Commission’s source-apportionment modeling were arbitrary and capricious; (2) the EPA’s designation of Wise County as nonattainment violated the Commerce Clause, U.S. CONST. art. I, § 8, cl. 3, the Tenth Amendment, *id.* amend. X, and the Due Process Clause, *id.* amend. V; and (3) the EPA violated at least one of several statutory provisions, including provisions of the Clean Air Act. We address each argument in turn.

2. The Arbitrary & Capricious Challenges

The Texas Petitioners’ primary arguments are that the EPA erred when it (i) used HYSPLIT modeling rather than prevailing wind patterns¹⁸ and (ii) adjusted the Texas Commission’s source-apportionment modeling.¹⁹ To prevail on either argument, the Texas Petitioners must demonstrate that the EPA acted arbitrarily and capriciously and, to do that, they must show that the EPA either failed to consider “all relevant factors” or to articulate a “rational connection between the facts found and the choice made.” *ATK Launch Sys.*, 669 F.3d at 336. Mindful of the “extreme degree of deference” we owe to the EPA “when it is evaluating scientific data within its

¹⁸ See State & County Br. 45–46; Industrial Br. 14–26.

¹⁹ See State & County Br. 39–44; Industrial Br. 26–30.

technical expertise,” *Catawba Cnty.*, 571 F.3d at 41, and for the reasons stated below, we conclude that neither argument has merit.

i. HYSPLIT Modeling

The Texas Petitioners challenge the EPA’s use of HYSPLIT modeling on three fronts. First, they argue that the EPA could not legitimately use HYSPLIT modeling at all because HYSPLIT “cannot measure ozone formation or transport.” State & County Br. 45. Second, they contend that the EPA arbitrarily treated Wise County differently by using HYSPLIT modeling to designate it as nonattainment while using historic wind patterns to designate other allegedly similar counties as attainment. And third, they argue that, even among other counties that the EPA subjected to HYSPLIT modeling, it arbitrarily treated Wise County worse because the respective HYSPLIT models demonstrated that wind moved through those other counties—each of which the EPA designated as attainment—more frequently than it moved through Wise County. We address each argument in turn.

First, we find no merit in the Texas Petitioners’ conclusory argument that the EPA erred by using HYSPLIT modeling at all because HYSPLIT modeling “cannot measure ozone formation or transport. See State & County Br. 45–46. Indeed, we rejected a materially indistinguishable challenge in *ATK Launch Systems*, 669 F.3d at 339, a case involving the EPA’s 2006 fine particulate matter NAAQS designations. See *id.* at 334. We did so there because the EPA had taken “reasonable steps to ensure that the ‘HYSPLIT’ model’s limitations were considered.” *Id.* at 339 (quotation mark omitted).

Here too, the EPA took reasonable steps to account for HYSPLIT’s limitations by evaluating the

source-apportionment modeling and historical wind data that the Texas Commission submitted during the comment period. See Final Dallas–Fort Worth Area Designations at 14–20, 23. Because “[o]zone and ozone precursors can be transported to an area from sources in nearby areas or from sources located hundreds of miles away,” see 2008 Designations Rule, 77 Fed. Reg. at 30,088, the EPA reasonably concluded that HYSPLIT modeling, as a more precise measurement of the path taken by air masses containing ozone precursors, was useful in determining whether wind moving through Wise County could have transported emissions to the areas with the violating monitors.

Second, we find no merit in the Texas Petitioners’ argument that the EPA’s use of HYSPLIT modeling to designate Wise County as nonattainment amounts to arbitrarily disparate treatment. At the outset, it bears repeating that this Court has expressly sanctioned the EPA’s use of a holistic, multi-factor, totality-of-the-circumstances test for making NAAQS determinations, see *ATK Launch Sys.*, 669 F.3d at 336; *Catawba Cnty.*, 571 F.3d at 39, and we have twice iterated that, when using a multi-factor test, “ ‘discrete data points’ are *not* determinative” because isolating any one discrete consideration “ ‘ignores the very nature of the . . . test, which is designed to analyze a wide variety of data on a case-by-case basis.’ ” *ATK Launch Sys.*, 669 F.3d at 336 (quoting *Catawba Cnty.*, 571 F.3d at 39) (emphasis added; alteration omitted)). Indeed, because the EPA’s “holistic assessment of numerous factors . . . drives the process,” we have recognized that “no single factor determines a particular designation.” *Id.* For this reason, the EPA could have subjected Wise County to arbitrarily disparate treatment only if it treated genuinely “*similar counties*” dissimilarly. *Id.* (emphasis in original). Given “significant” differences among counties, “a direct one-to-one comparison of the data,” including the methods

used to measure such data, could be “inappropriate” or even “illogical.” *Id.* at 337.

As noted, the EPA conducted a HYSPLIT analysis in areas where it “believed [HYSPLIT] could provide additional insight into whether [the] area[] contribute[s] to nonattainment.” Resp’t’s Br. 110 n.47. The EPA reasonably determined that Wise County was one such area because Dallas–Fort Worth “experiences light wind speeds and winds from variable directions,” making HYSPLIT’s more sophisticated evaluation of wind patterns “a more useful tool than annualized wind patterns.” EPA Response to Pet. for Reconsideration from Devon Energy Corp. at 12. According to the EPA, this more refined analysis was not necessary for all areas of the country, particularly those in which “there was not significant debate over whether [they] should be included” in a nonattainment area. *See* Resp’t’s Br. 111. The EPA’s decision to use HYSPLIT analysis in one area but not in another fits comfortably within the agency’s “technical expertise,” *Catawba Cnty.*, 571 F.3d at 41, and the EPA’s explanation for the differing treatment was rational.

Moreover, although the Texas Petitioners direct this Court to other attainment areas that were not evaluated using HYSPLIT modeling—specifically, Orange County and Cattaraugus County in New York—the “significant” differences between Wise County and those counties “make a direct one-to-one comparison of the data underlying the analyses inappropriate.” *ATK Launch Sys.*, 669 F.3d at 337. For instance, the EPA justified its Orange County attainment designation, in part, on its finding that “the density of [Orange County’s] emissions and vehicle usages *are not* of the level of the other counties in the CSA that are in New York’s proposed New York–Northern New Jersey–Long Island, NY–NJ–CT nonattainment area.” New York–Northern New Jersey–Long

Island, NY-NJ-CT Nonattainment Area Designations for the 2008 Ozone NAAQS at 16 (emphasis added). In contrast, the EPA justified its nonattainment designation of Wise County, in part, based on the “[t]he close proximity of [Wise County’s] *comparatively high* emissions to violating monitors.” Final Dallas–Fort Worth Area Designations at 23 (emphasis added).

Similarly, the EPA designated Cattaraugus County as attainment not only because “it is in the prevailing downwind direction from” the nearest violating monitor but also because “other monitors representative of Cattaraugus County, as well as the rest of upstate New York, are *attaining* the ozone standard.” See Attainment Status for Jamestown, New York and the Remainder of Upstate New York at 6 (emphasis added). But in the Dallas–Fort Worth area, *seven* violating monitors surrounded Wise County and some of the monitors—including one located one-half mile from Wise County’s border—reported levels of ambient ozone higher than anywhere else in the United States. Because “the core reason for the disparate designations” did not, as the Texas Petitioners would have it, reflect an “inconsistent approach to meteorology,” Industrial Br. 19, the EPA did not arbitrarily and capriciously treat Wise County differently by evaluating its wind patterns using HYSPLIT modeling instead of prevailing wind patterns.

Third, when Wise County is compared to other counties for which the EPA used HYSPLIT modeling, it is clear that the EPA did not arbitrarily subject Wise County to disparate treatment. The Texas Petitioners point to four other counties—York, Dauphin and Lawrence Counties in Pennsylvania and Roane County, Tennessee—each of which the EPA designated as attainment notwithstanding HYSPLIT modeling demonstrated that air moved through them to violating monitors more frequently than through Wise County.

But again, a holistic look at why the EPA designated these counties attainment but designated Wise County nonattainment demonstrates that the EPA did not act arbitrarily or capriciously.

For example, York and Dauphin Counties are both near Lancaster County, which houses all violating monitors in the area. Because Lancaster County “is served by a single-county transportation-planning agency,” the EPA concluded that there were “strong jurisdictional arguments” for designating Lancaster as “a single county nonattainment area” and, accordingly, designating all other counties in the vicinity—including York and Dauphin—as attainment. See Pennsylvania Area Designations for the 2008 Ozone NAAQS at 29–31. In contrast, Wise County is part of the Dallas–Fort Worth CSA (which means it is presumptively included in the Dallas–Fort Worth nonattainment area) and is also part of the Dallas–Fort Worth metropolitan planning organization (which implements programs and projects to reduce emissions across all included counties). In other words, jurisdictional and regional planning concerns—*not* differing approaches to HYSPLIT modeling data—drove the EPA’s conclusion that York and Dauphin Counties should be designated as attainment while Wise County should be designated as nonattainment.

The Texas Petitioners’ comparisons of Wise County to Roane County, Tennessee, and Lawrence County, Pennsylvania, fare no better. Roane County is “geographically separated from the nearest county with a violating monitor” by approximately thirty miles and the ozone levels in the county between Roane and the next county with a violating monitor are in attainment. Resp’t’s Br. 122. The monitor in Lawrence County reports ozone levels that, at 0.066 ppm, are well below the EPA’s NAAQS 0.075 ppm threshold.

Moreover, the county with a violating monitor nearest to Lawrence County—Allegheny County—is not adjacent to Lawrence County. In contrast to both Roane County and Lawrence County, Wise County is adjacent to multiple counties reporting severe NAAQS violations, the closest of which is located a mere half mile from the Wise County line.

The dispositive principle that the Texas Petitioners try to, but ultimately cannot, avoid is that under the EPA's holistic analysis, "discrete data points" like the data from HYSPLIT modeling "are not determinative, because elevating them ignore[s] the very nature of the [holistic] test, which is designed to analyze a wide variety of data on a case-by-case basis." *ATK Launch Sys.*, 669 F.3d at 336 (quotation mark omitted). Based on the foregoing analysis, we cannot say that, had the EPA declined to evaluate Wise County's wind patterns using HYSPLIT modeling, Wise County "would not have been designated nonattainment." *Industrial Br. 19*. Because none of the areas discussed by the Texas Petitioners is truly "similarly situated" to Wise County, and because the EPA fully and rationally supported its use of HYSPLIT modeling for Wise County, it did not act arbitrarily or capriciously.

ii. Source-Appportionment Modeling

The Texas Petitioners also challenge the EPA's modification of the Texas Commission's source-apportionment modeling on three fronts. First, they argue that the EPA has not rationally explained why it considered the source-apportionment modeling's projected *absolute* impact—instead of its projected *relative* impact—that wind from Wise County would have on violating Dallas–Fort Worth area monitors. Second, they argue that the EPA's analysis of the Texas Commission's source-apportionment modeling was inconsistent with its analysis of

source-apportionment modeling submitted in connection with Illinois's designation of Lake County. And third, they argue that the EPA's decision to examine the model's projected absolute impact rather than its relative impact violated the EPA's earlier modeling guidance.

We note, at the outset, that the EPA's application, interpretation and modification of source-apportionment modeling plainly fall "within its technical expertise" and thus we owe it "an extreme degree of deference." *ATK Launch Sys.*, 669 F.3d at 338 (quotation marks omitted). To withstand judicial review, the EPA needs to articulate only a "rational connection between the facts found and the choice made," *Burlington Truck Lines*, 371 U.S. at 168, show that it treated "similar counties" similarly, *ATK Launch Sys.*, 669 F.3d at 336 (emphasis in original), and demonstrate that it did not run afoul of binding guidance, *see generally Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020–23 (D.C. Cir. 2000). Because the EPA has done all three, we will not disturb its designation of Wise County as nonattainment based on the Texas Petitioners' objections to its interpretation of the Texas Commission's source-apportionment modeling.

First, the Texas Petitioners challenge the EPA's decision to reinterpret the source-apportionment modeling submitted by the Texas Commission. As discussed, *supra* § III.F.1, when the EPA received the Texas Commission's source-apportionment modeling data during the comment period, it observed that the model did not rely on data from an entire ozone season. Rather, the projections in the Texas Commission's model relied on data from June 2006 only. The Texas Commission based its approach on the fact that June 2006 purportedly presented "an exceptionally rich set of air quality and meteorological measurements," "had the most high-ozone days of any month" and experienced "all the

meteorological conditions linked to formation of high ozone concentration.” See Response to Texas Commission on Environmental Quality’s Reconsideration Pet. at 3.

Despite these assurances, the EPA did not agree that one month of data, even an “exceptionally rich” month, was sufficient. Specifically, the EPA observed that the ozone season in the Dallas–Fort Worth area was bimodal (*i.e.*, reporting its highest ozone values in July–September but experiencing a lower ozone peak in May–June) and that the Texas Commission’s reliance on limited data meant that it failed to account for “all of the meteorology regimes conducive for ozone events” in the Dallas–Fort Worth area. See Final Dallas–Fort Worth Area Designations at 16. According to the EPA, “emphasis on the average modeled impact is more appropriate when a full ozone season of model results is available.” See Resp’t’s Br. 131. Because the Texas Commission’s model was premised on baseline data excluding “events that happen in mid to late-summer that often set” the Dallas–Fort Worth area’s ozone levels, the EPA examined both the projected average impact and the projected maximum impact of Wise County emissions. See Final Dallas–Fort Worth Area Designations at 16.

At bottom, the EPA had a “basic obligation” to conduct “reasoned decisionmaking.” *Catawba Cnty.*, 571 F.3d at 25. When presented with the Texas Commission’s source-apportionment modeling, the EPA determined that it “needed to be carefully evaluated and could not simply be accepted at face value,” Resp’t’s Br. 126, identified several methodological flaws in the Texas Commission’s data, adjusted the Texas Commission’s submissions to account for the flaws and articulated, quite thoroughly, a “rational connection between the facts found and the choice made.” *Burlington Truck Lines, Inc.*, 371 U.S. at 168. On this record,

we cannot say that the EPA acted arbitrarily or capriciously in re-evaluating the Texas Commission's source-apportionment modeling data. Rather, the EPA's thorough treatment of all available data indicates that it in fact "surpassed" its "obligation of reasoned decisionmaking." *Catawba Cnty.*, 571 F.3d at 25.

Second, the Texas Petitioners argue that the EPA's modification to the Texas Commission's source-apportionment modeling subjected Wise County to arbitrarily disparate treatment. They compare the EPA's interpretation of the Texas Commission's modeling to its interpretation of source-apportionment modeling for the Chicago area. Specifically, they argue that (1) emissions from Jasper County, a Chicago-area county with attainment status, had a projected average impact on violating monitors similar to Wise County's; (2) the EPA should have evaluated the average impact of Wise County's emissions on violating monitors as it did for Jasper County; and (3) the EPA's evaluation of Wise County's maximum, as opposed to relative, estimated impact was, accordingly, inconsistent and resulted in an arbitrarily different result between Wise County and Jasper County.

Again, we emphasize that applying different methods to different areas, standing alone, does not give rise to arbitrarily disparate treatment and given "significant" relevant differences between two areas, "a direct one-to-one comparison of the data" or the methods used to measure such data can be "inappropriate." *ATK Launch Sys.*, 669 F.3d at 337. Here, the significant difference lies in the quality of data submitted by the Texas Commission compared to that submitted in support of Jasper County. Specifically, the source-apportionment model submitted in support of the Chicago-area designations included data from a full ozone

season, which made “emphasis on the average modeled impact . . . more appropriate.” Resp’t’s Br. 131. As noted, the EPA modified the Texas Commission’s source-apportionment model because it did not include data from a full ozone season.

Moreover, the EPA had to compensate for the fact that the Texas Commission’s source-apportionment model underestimated the number of days that monitors in the Dallas–Fort Worth area exceeded the ozone NAAQS because the model under-predicted peak ozone levels around the monitors, sometimes by a significant range. The source-apportionment model for Jasper County, however, had the opposite problem; it did not account for recent emissions reductions at a Jasper County power plant and thus the Chicago-area source-apportionment model *over-reported* Jasper County’s emissions impact. See Chicago Area Designations at 9–10. Stated differently, because Wise County’s model under-reported its emissions impact and Jasper County’s model over-reported its emissions impact, the EPA reasonably concluded that the two counties should receive different attainment designations.

Third, the Texas Petitioners argue that the EPA arbitrarily and capriciously deviated from its earlier guidance on source-apportionment modeling, which guidance allegedly expressed a preference for relative, rather than absolute, modeling. Specifically, they argue that the EPA’s reliance on Wise County’s maximum potential emissions impact directly conflicts with the EPA’s 2007 “Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze” (2007 Attainment Guidance). In that guidance, the EPA stated that its “recommended test is one in which model estimates are used in a ‘relative’ rather than ‘absolute’ sense.” *Id.* at 15.

As a threshold matter, the 2007 Attainment Guidance does not speak to the use of source-apportionment modeling in the designation process; rather, it recommends procedures that a state can use after it has been designated as nonattainment to show that its proposed emission control strategy will eventually result in attainment status. But even assuming that the 2007 Attainment Guidance informs the current NAAQS designation process, the EPA did not err by deviating from it. Indeed, the 2007 Guidance expressly contemplates deviations in appropriate cases:

This document does not substitute for any Clean Air Act provision or EPA regulation, nor is it a regulation itself. Thus, it does not impose binding, enforceable requirements on any party, nor does it assure that EPA will approve all instances of its application. The guidance may not apply to a particular situation, depending upon the circumstances. The EPA and State decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. . . .

Users are cautioned not to regard statements recommending the use of certain procedures or defaults as either precluding other procedures or information, or providing guarantees that using these procedures or defaults will result in actions that are fully approvable. . . . EPA cannot assure that actions based upon this guidance will be fully approvable in all instances.

2007 Attainment Guidance at ix.

As noted, the EPA fully explained why it revised and independently evaluated the Texas Commission's source-apportionment modeling to account for "the limited data set [the Texas Commission] relied upon." Resp't's Br. 136. Because the 2007 Attainment Guidance did not compel the EPA to limit its consideration to relative projected impacts, and because the EPA articulated a "rational connection between the facts found and the choice made," *Catawba Cnty.*, 571 F.3d at 41, it did not act arbitrarily or capriciously when it relied on Wise County's absolute, rather than relative, impact on NAAQS-violating monitors.

The fundamental deficiency in the Texas Petitioners' challenges to the EPA's revision of the Dallas–Fort Worth area source-apportionment model is that, to establish that "EPA's administration of the complicated provisions of the Clean Air Act" was erroneous, *Catawba Cnty.*, 571 F.3d at 41, they have to demonstrate more than mere disagreement with the EPA's reasoning. Barring an unreasonable or irrational application of the "scientific data within [the EPA's] technical expertise," *City of Waukesha*, 320 F.3d at 247, we cannot say that the EPA acted arbitrarily or capriciously. The record plainly shows that the EPA "considered all relevant factors and articulated a 'rational connection between the facts found and the choice made' " when it declined to accept the Texas Commission's source-apportionment model without modification. *Catawba Cnty.*, 571 F.3d at 41 (quoting *Burlington Truck Lines*, 371 U.S. at 168). We therefore hold that the EPA did not act arbitrarily or capriciously when it did so.

3. The Constitutional Challenges

In this section, we address three constitutional challenges that Texas, Wise County, and the Texas Commission on Environmental Quality (collectively, Texas State Petitioners) raise to the EPA's designation of Wise County, Texas as a nonattainment area.

i. The Tenth Amendment & The Spending Clause

The Texas State Petitioners, joined by the Mississippi Petitioners, argue that § 7407(d)(1)(B) and related sections of the Clean Air Act—at least to the extent that they authorize the EPA to override the State's designation and declare Wise County a nonattainment area—violate the Tenth Amendment and exceed the Congress' authority under the Spending Clause.

First, the Texas State Petitioners maintain that § 7407(d)(1)(B) unlawfully permits the EPA to “commandeer[] State regulators to enforce a federal regulatory program.” State & County Br. 32. The section grants the EPA authority to “make such modifications as the Administrator deems necessary to the designations of the areas . . . submitted [by the States].” 42 U.S.C. § 7407(d)(1)(B)(ii). According to the petitioners, “[w]hen EPA overrides a State, it compels State regulators to enforce a myriad of federal requirements involving emissions controls, clean fuel programs, transportation and land use limitations in the designated area.” State & County Br. 33 (citing 42 U.S.C. §§ 7511 *et seq.* (outlining requirements specific to ozone nonattainment areas)).

The Texas State Petitioners are correct that “the Federal Government may not compel the States to implement . . . federal regulatory programs,” *Printz v. United States*, 521 U.S.

898, 925 (1997).²⁰ But the Clean Air Act does not do that. Instead, the statutory scheme authorizes the EPA to promulgate and administer a federal implementation plan of its own if the State fails to submit an adequate state implementation plan. See 42 U.S.C. § 7410(c). And as we recently noted, the Supreme Court has “repeatedly affirm[ed] the constitutionality of federal statutes that allow States to administer federal programs but provide for direct federal administration if a State chooses not to administer it.” *Texas v. EPA*, 726 F.3d 180, 196–97 (D.C. Cir. 2013) (citing *New York v. United States*, 505 U.S. 144, 167–68, 173–74 (1992); *Hodel v. Va. Surface Mining & Reclamation Ass’n, Inc.*, 452 U.S. 264, 288 (1981)). Here, too, the “full regulatory burden will be borne by the Federal Government” if a State chooses not to submit an implementation plan. *Va. Surface Mining & Reclamation Ass’n*, 452 U.S. at 288. Under these circumstances, “there can be no suggestion that the Act commandeers . . . the States.” *Id.*

Second, the Texas State Petitioners maintain that the Clean Air Act’s sanctions for noncompliant states impose such a steep price that State officials effectively have no choice but to comply—in contravention of the Supreme Court’s decision in *National Federation of Independent Business v. Sebelius* (*NFIB*), 132 S. Ct. 2566, 2603 (2012) (plurality opinion). See

²⁰ See *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 132 S. Ct. 2566, 2602 (2012) (plurality opinion) (noting that the Court has struck “down federal legislation that commandeers a State’s legislative or administrative apparatus for federal purposes”); *Printz*, 521 U.S. at 933 (invalidating federal legislation compelling State law enforcement officers to perform federally mandated background checks on handgun purchasers); *New York v. United States*, 505 U.S. 144, 174–77 (1992) (invalidating a provision of a federal statute compelling a State either to take title to nuclear waste or to enact particular state waste regulations).

State & County Br. 33–34. The Act requires the EPA to impose sanctions on a State that fails to submit an adequate plan or implement an approved plan if it does not correct the deficiency within 18 months. *See* 42 U.S.C. § 7509(a). The focus of the petitioners’ challenge is the sanction regarding federal highway funds. Under the Act, the EPA Administrator may prohibit the approval of any transportation projects or grants within the nonattainment area, except those that the Secretary of Transportation determines are intended to resolve a demonstrated safety problem and will likely result in a reduction in accidents. *Id.* § 7509(b)(1)(A). The Secretary of Transportation may also continue to approve a number of other kinds of projects and grants, notwithstanding the EPA Administrator’s prohibition. *Id.* § 7509(b)(1)(B)(i)–(viii) (authorizing continued approval of projects and grants including capital programs for public transit, projects affecting bus lanes and high occupancy vehicle lanes, programs that improve traffic flow, and programs that “would improve air quality and would not encourage single occupancy vehicle capacity”).

As Chief Justice Roberts noted in *NFIB*, the Supreme Court has “long recognized that Congress may use” the power given it by the Spending Clause “to grant federal funds to the States, and may condition such a grant upon the States’ ‘taking certain actions that Congress could not require them to take.’ ” *NFIB*, 132 S. Ct. at 2601 (quoting *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 686 (1999)). “Such measures ‘encourage a State to regulate in a particular way, [and] influenc[e] a State’s policy choices.’ ” *Id.* at 2601–02 (quoting *New York*, 505 U.S. at 166) (alterations in original). “The conditions imposed by Congress ensure that the funds are used by the States to ‘provide for the . . . general Welfare’ in the manner Congress intended.” *Id.* at 2602 (quoting U.S. CONST., art. I, § 8, cl. 1).

“At the same time,” the Chief Justice continued, the Court’s “cases have recognized limits on Congress’s power under the Spending Clause to secure state compliance with federal objectives.” *Id.* The Court has “repeatedly characterized . . . Spending Clause legislation as ‘much in the nature of a contract.’ ” *Id.* (quoting *Barnes v. Gorman*, 536 U.S. 181, 186 (2002) (quoting *Pennhurst State Sch. & Hosp. v. Halderman*, 451 U.S. 1, 17 (1981))). “The legitimacy of Congress’s exercise of the spending power ‘thus rests on whether the State voluntarily and knowingly accepts the terms of the contract.’ ” *Id.* (quoting *Pennhurst*, 451 U.S. at 17) (some internal quotation marks omitted). “Congress may use its spending power to create incentives for States to act in accordance with federal policies,” the Chief Justice concluded, “[b]ut when ‘pressure turns into compulsion,’ the legislation runs contrary to our system of federalism.” *Id.* (quoting *Steward Mach. Co. v. Davis*, 301 U.S. 548, 590 (1937)).²¹

In *NFIB*, the Court struck down—as in excess of the Congress’ authority under the Spending Clause—a provision of the Affordable Care Act (ACA) that expanded the scope of the Medicaid program and increased the number of individuals the States had to cover. Although the Act increased federal funding to cover much of the States’ costs in expanding Medicaid coverage, it also provided that, if a State did not

²¹ As we discuss below, the Texas State Petitioners argue that the threat of highway sanctions makes the promulgation of SIP provisions for a nonattainment area effectively compulsory. They do not argue that the sanctions provision fails to comply with any other constitutional requirements governing conditions on federal grants to the States. See *South Dakota v. Dole*, 483 U.S. 203, 207–08 (1987) (requiring that conditions promote the general welfare, be unambiguous, be related to the federal interest, and be consistent with other constitutional provisions).

comply with the Act's new coverage requirements, it could lose not only the new federal funding, but all of its existing federal Medicaid funds. *NFIB*, 132 S. Ct. at 2582. The Chief Justice's plurality opinion—for himself and Justices Breyer and Kagan—controls our decision on this issue.²²

In addressing the question of overbearing financial coercion, the Chief Justice first discussed *Dole*, 483 U.S. 203, in which the Court rejected such a challenge. In that case, the Congress had threatened to withhold 5 per cent of a State's federal highway funding unless the State raised its drinking age to 21. The Chief Justice noted that, although “the condition was ‘directly related to one of the main purposes for which highway funds are expended—safe interstate travel,’ ” it “was not a restriction on how the highway funds—set aside for specific highway improvement and maintenance efforts—were to be used.” *NFIB*, 132 S. Ct. at 2604 (quoting *Dole*, 483 U.S. at 208). “[A]ccordingly,” he said, the *Dole* Court “asked whether ‘the financial inducement offered by Congress’ was ‘so coercive as to pass the point at which pressure turns into compulsion.’ ” *Id.* (quoting *Dole*, 483 U.S. at 211) (some internal quotation marks omitted). The Court answered that this monetary sanction was not impermissibly coercive, but rather offered only “relatively mild encouragement to the

²² When a majority of the Supreme Court agrees on a result, but “no single rationale explaining the result enjoys the assent of five Justices, ‘the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds’ ” *Marks v. United States*, 430 U.S. 188, 193 (1977) (quoting *Gregg v. Georgia*, 428 U.S. 153, 169 n.15 (1976) (plurality opinion)). The *NFIB* plurality found a Spending Clause violation on narrower grounds than did the joint opinion of Justices Scalia, Kennedy, Thomas, and Alito, *NFIB*, 132 S. Ct. at 2656–69. See *Mayhew v. Burwell*, 772 F.3d 80, 88–89 (1st Cir. 2014). It therefore controls here. *Id.*

states” because “all South Dakota would lose if she adheres to her chosen course as to a suitable minimum drinking age is 5%” of her federal highway funds. *Dole*, 483 U.S. at 211; see *NFIB*, 132 S. Ct. at 2604. “In fact,” as the Chief Justice further noted in *NFIB*, “the federal funds at stake constituted less than half of one percent of South Dakota’s budget at the time.” *NFIB*, 132 S. Ct. at 2604.

In *NFIB*, the Chief Justice found that, as in *Dole*, the conditions the ACA imposed on the States did not “govern the use of” the new funds it granted to the States, but rather took “the form of threats to terminate other significant independent grants” already in existence. *Id.* Accordingly, he said, “the conditions are properly viewed as a means of pressuring the States to accept policy changes” and their level of coerciveness therefore had to be evaluated. *Id.* Upon doing so, the Chief Justice found the ACA’s financial sanction to be “a gun to the head,” in contrast to the “mild encouragement” in *Dole*. *Id.* A State that opted out of the ACA’s Medicaid expansion stood “to lose not merely ‘a relatively small percentage’ of its existing Medicaid funding, but *all* of it.” *Id.* (quoting *Dole*, 483 U.S. at 211). That, the Chief Justice found, could amount to “over 10 percent of a State’s overall budget.” *Id.* at 2604–05.

In the case now before us, the Congress has conditioned some federal highway funding on Texas’s adoption of an adequate implementation plan. This condition, like the one at issue in *Dole*, is—at least arguably—not a restriction on how the highway funds are to be used, but rather an incentive to encourage States to take action in a related policy area. *But see* discussion *infra*. Although as discussed below we are uncertain whether that alone is sufficient to trigger a coerciveness inquiry, we will proceed to evaluate the coercive effect of section 7509(b). For the following reasons, we find

that the potential funding sanctions contained in section 7509(b) of the Clean Air Act are not nearly as coercive as those in the ACA.

First, unlike the situation in *NFIB* and like that in *Dole*, a noncompliant State does not risk losing *all* federal funding for an existing program. To the contrary, the EPA Administrator can only prohibit funding for transportation projects or grants applicable to the nonattainment area. 42 U.S.C. § 7509(b)(1)(A); 40 C.F.R. § 52.31(b)(3), (e)(2) (providing that the “highway funding sanction shall apply . . . only to . . . areas that are designated nonattainment”); see *Virginia v. Browner*, 80 F.3d 869, 881 (4th Cir. 1996) (“[A] state does not lose any highway funds that would be spent in areas of the state that are in attainment.”). Even within the nonattainment area, the Administrator may not prohibit the approval of projects or grants that the Secretary of Transportation determines are intended to resolve a demonstrated safety problem and will likely result in a reduction in accidents. 42 U.S.C. § 7509(b)(1)(A). Indeed, the Secretary of Transportation may continue to approve a number of other kinds of projects and grants as well, including those that “would improve air quality.” *Id.* § 7509(b)(1)(B)(viii); see *id.* § 7509(b)(1)(B)(i)–(viii).

Second, the threatened loss of federal highway funding does not even approach the “over 10 percent of a State’s overall budget” at issue in *NFIB*. Texas advises us that it received more than \$3 billion in federal highway and transit funds in 2013. State & County Br. 33 n.29. Even if all of that were withheld, it would still have amounted to less than 4 per cent of the State’s 2013 budget.²³ But as noted above,

²³ See Nat’l Ass’n of State Budget Officers, The State Expenditure Report 2012–2014 8 (2014) (listing 2013 expenditures

Texas does not stand to lose all of its highway funds. The potential sanction applies, at most, to highway funds for projects in nonattainment areas. Wise County is the only county for which the petitioners make a Tenth Amendment argument, and because it is only one of 254 Texas counties, it is unlikely that the loss of even all of that county's federal highway funds would put a serious dent in the State's total budget.²⁴ Moreover, as also noted above, it is unlikely that even that one county would lose all of its federal highway funding because the potential sanction does not extend to funding for a list of enumerated projects. See 42 U.S.C. § 7509(b)(1)(A), (B)(i)–(viii).

In short, it is clear that Texas does not risk losing anywhere near the percentage of its federal funding—either for the program at issue or of its overall budget—that the Court found fatal in *NFIB*. Precisely how much less, we do not know. But the burden of establishing unconstitutionality is on the challenger, and Texas has failed to provide the necessary information. That failure is further ground for rejecting the State's constitutional challenge. See *NFIB*, 132 S. Ct. at 2662 (joint opinion of Scalia, Kennedy, Thomas, and Alito, JJ.)

as approximately \$93 billion); Texas General Appropriations Act for the 2012–13 Biennium xi (2011), available at http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2012-13.pdf (appropriating approximately \$79 billion for 2013).

²⁴ Seventeen other Texas counties are also in nonattainment areas. See Final Dallas–Fort Worth Area Designations at 1; Houston–Galveston–Brazoria, Texas Final Area Designations for the 2008 Ozone NAAQS at 1. But that is still only a small percentage of the State's total of 254 counties. See also Env'tl. Prot. Agency, Map of Texas 8-hour Ozone Nonattainment Areas (2008 Standard), available at http://www.epa.gov/oaqps001/greenbk/tx8_2008.html.

(“[C]ourts should not conclude that legislation is unconstitutional on this ground unless the coercive nature of an offer is unmistakably clear.”); *see also United States v. Morrison*, 529 U.S. 598, 607 (2000) (requiring a “plain showing” of unconstitutionality); *United States v. Bland*, 472 F.2d 1329, 1334 (D.C. Cir. 1972) (*en banc*) (noting that “the burden of establishing the unconstitutionality of a statute rests on him who assails it”).

Finally, although we have concluded that the highway sanction is not unconstitutionally coercive, we note some uncertainty as to whether a coerciveness inquiry was required. There are two circumstances that may distinguish this case from those in which the Supreme Court has found such an inquiry necessary.

First, as described in *NFIB*, the inquiry in *Dole* was triggered by the fact that the Congress had imposed a condition that did not restrict how the federal highway funds at issue were to be used. Here, by contrast, the condition and sanction do redirect the federal highway funds of non-complying states to programs of the Congress’ choosing, including those that “would improve air quality and would not encourage single occupancy vehicle capacity.” 42 U.S.C. § 7509(b)(1)(B)(viii); *see id.* § 7509(b)(1)(B)(i)–(viii). As the Senate Committee Report on the 1990 Clean Air Act amendments explains, for nonattainment areas in States that fail to submit an adequate SIP, “Federal transportation investments” are “shifted to transportation programs that are designed to provide alternatives to the single occupancy vehicle and that contribute to reducing future [vehicle miles traveled].” S. REP. NO. 101-228, at 26 (1989).

Second, the condition at issue in *Dole*—which required the States to raise their drinking age to 21—was also, at the

time of South Dakota's challenge, a *new* condition that had not been part of the original program. In *NFIB*, although the condition was a restriction on how Medicaid funds could be spent, Chief Justice Roberts found that the condition was also a new one. "Indeed," he stressed, "the manner in which the expansion is structured indicates that while Congress may have styled the expansion a mere alteration of existing Medicaid, it recognized it was enlisting the States in a new health care program." *NFIB*, 132 S. Ct. at 2606. This was important, he said, because "Spending Clause legislation [is] much in the nature of a contract," *id.* at 2602 (internal quotation marks omitted), and "[t]hough Congress' power to legislate under the spending power is broad, it does not include surprising participating States with post-acceptance or retroactive conditions," *id.* at 2606 (internal quotation marks omitted). In both *Dole* and *NFIB*, the condition at issue was "new" in two senses of the word: Both conditions had been recently enacted at the time of the litigation, and both conditions imposed additional requirements with which States had to comply to continue receiving preexisting federal funding.

Neither the Clean Air Act's requirement to submit an implementation plan, nor its highway funds sanction, is a condition that has been newly imposed on the States. Although both were new in 1977, *see* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, §§ 103, 176, 91 Stat. 685, 687–88, 749–50 (1977), since then Texas has submitted implementation plans and accepted billions of dollars in highway funding. Accordingly, when the EPA issued the Wise County nonattainment designation in 2012, Texas was not suddenly surprised by dramatically new conditions retroactively imposed after a long period in which the State had accepted and relied upon unconditional federal funding—as was the case in *NFIB*.

These differences from the Supreme Court's precedents create some uncertainty as to whether the coerciveness inquiry employed in *Dole* and *NFIB* was even triggered by the Clean Air Act provisions at issue here. Even if it were, the fact that the State has long accepted billions of dollars notwithstanding the challenged conditions may be an additional relevant factor in the contract-like analysis the Court has in mind for assessing the constitutionality of Spending Clause legislation. But we need not resolve that uncertainty today. Because the challenged provisions of the Clean Air Act survive a coerciveness inquiry in any event, we reject the Texas State Petitioners' challenge to their constitutionality.

ii. The Commerce Clause

The Texas State Petitioners also argue that the Wise County designation exceeds the scope of the Congress' authority under the Commerce Clause. As explained above, *supra* § III.F.1, the designation declared that Wise County contributed enough ozone emissions to nearby violations of the NAAQS to warrant its own nonattainment designation. By virtue of that designation, sources of emissions within the county must comply with a variety of additional requirements. *See, e.g.*, 42 U.S.C. § 7502(c)(1) (requiring the implementation of "all reasonably available control measures"); *id.* § 7502(c)(5) (requiring "permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area").

The Commerce Clause grants the Congress the power "[t]o regulate Commerce . . . among the several States." U.S. CONST., art. I, § 8, cl. 3. The Supreme Court has "recognized . . . that '[t]he power of Congress over interstate commerce is not confined to the regulation of commerce among the states,' but extends to activities that 'have a substantial effect on

interstate commerce.’ ” *NFIB*, 132 S. Ct. at 2585–86 (opinion of Roberts, C.J.) (quoting *United States v. Darby*, 312 U.S. 100, 118–19 (1941)); see *United States v. Lopez*, 514 U.S. 549, 558–59 (1995). “Congress’s power, moreover, is not limited to regulation of an activity that by itself substantially affects interstate commerce, but also extends to activities that do so only when aggregated with similar activities of others.” *NFIB*, 132 S. Ct. at 2586 (opinion of Roberts, C.J.) (citing *Wickard v. Filburn*, 317 U.S. 111, 127–28 (1942)). The question for a court is whether there was a “rational basis” for the Congress’ conclusion that a regulated activity substantially affects interstate commerce. *Hodel v. Indiana*, 452 U.S. 314, 323–24 (1981); see *Nat’l Ass’n of Home Builders v. Babbitt (NAHB)*, 130 F.3d 1041, 1051 (D.C. Cir. 1997) (opinion of Wald, J.).

The Texas State Petitioners’ first contention is that the NO_x emissions produced by oil and gas activity in the Barnett Shale in Wise County do not “ ‘substantially affect’ interstate commerce,” principally because the emissions are “wholly intrastate.” State & County Br. 36. That premise is unsupported by any proffered evidence and is factually incorrect. The phenomenon of *interstate* transport of ozone has been thoroughly studied, and it has been recognized by the Congress, the EPA, the Supreme Court, and this Court.²⁵ The

²⁵ See 42 U.S.C. §§ 7410(a)(2)(D), 7511c (Clean Air Act provisions addressing interstate transport of ozone); S. REP. NO. 101-228, at 34 (1989) (discussing Clean Air Act amendments designed to “[c]ontrol . . . interstate ozone pollution”); *id.* at 13 (noting that “ozone is not a local phenomenon but is formed and transported over hundreds of miles and several days”); 2008 Designations Rule, 77 Fed. Reg. at 30,089 (finding that ozone and ozone precursors travel easily through the atmosphere, which can result in NAAQS violations hundreds of miles from the precursors’ source); *EME Homer City Generation, L.P.*, 134 S. Ct. at 1594

“winds, of course, recognize no [state] boundaries.” *United States v. Ford Motor Co.*, 814 F.2d 1099, 1102 (6th Cir. 1987).

But even if the particular emissions from the Barnett Shale stopped at the Texas state line, the regulation of their sources would still be permissible under the Commerce Clause for two reasons. First, “where a general regulatory statute bears a substantial relation to commerce, the *de minimis* character of individual instances arising under that statute is of no consequence.” *Lopez*, 514 U.S. at 558 (internal quotation marks omitted) (emphasis omitted); see *Gonzales v. Raich*, 545 U.S. 1, 17 (2005); *NAHB*, 130 F.3d at 1046 (opinion of Wald, J.). And there is no doubt that the general regulatory scheme of the Clean Air Act has a substantial relation to interstate commerce. Indeed, the same is true even if we focus only upon the Act’s generally applicable ozone provisions.

Moreover, we can find a substantial effect not only by examining the emissions that are produced, but also by examining the activities that the challenged statute regulates to reduce the production of those emissions. See *Rancho Viejo, LLC v. Norton*, 323 F.3d 1062, 1067 (D.C. Cir. 2003); *NAHB*, 130 F.3d at 1046 & n.3 (opinion of Wald, J.); *id.* at 1058 (Henderson, J., concurring). As we explained in *Rancho Viejo*, on this rationale we “focus[] on the activity that the federal government seeks to regulate.” 323 F.3d at 1069; see *Morrison*, 529 U.S. at 609 (instructing that “the proper inquiry” is whether the challenge is to “a regulation of *activity* that substantially affects interstate commerce”) (emphasis

(detailing the “journey” taken by ozone precursors, which “often develop into ozone . . . by the time they reach the atmospheres of downwind States”); *Virginia v. EPA*, 108 F.3d 1397, 1400 (D.C. Cir. 1997) (describing the “ozone transport phenomenon” in the lower atmosphere).

added); *Lopez*, 514 U.S. at 558–59 (“Congress’ commerce authority includes the power to regulate . . . those *activities* that substantially affect interstate commerce.”) (emphasis added). In *Rancho Viejo*, we upheld the constitutionality of the Fish and Wildlife Service’s decision to protect an endangered toad species by regulating a housing development, on the ground that the regulated activity, a “202-acre project, located near a major interstate highway, [was] . . . presumably being constructed using materials and people from outside the state.” 323 F.3d at 1069 (internal quotation marks omitted). Likewise, in *NAHB*, we upheld the Service’s decision to protect an endangered fly species by regulating the construction plan for a hospital, on the ground that the commercial land development at issue “ha[d] a plain and substantial effect on interstate commerce.” 130 F.3d at 1059 (Henderson, J., concurring); see *id.* at 1056 (opinion of Wald, J.).

Here, the activities that the EPA seeks to regulate are the commercial, industrial, and extraction processes that produce the emissions at issue. See 42 U.S.C. § 7511a; 2008 Designations Rule, 77 Fed. Reg. at 30,089. The nonattainment designation triggers regulatory controls on the sources of those emissions, many of which are indisputably entities engaged in substantial interstate commerce. In the case of Wise County in particular, those entities include multinational companies engaged in the production and sale of oil and gas from the Barnett Shale, including several of the Industrial Petitioners here.²⁶ The restrictions triggered by the

²⁶ Industrial Petitioner Devon Energy Corporation, for example, “is a leading independent oil and natural gas exploration and production company,” with operations “focused onshore in the United States and Canada.” Industrial Br. iv. “Devon is also one of North America’s larger processors of natural gas liquids, with . . . natural gas processing facilities in many of its producing areas,

nonattainment designation thus affect the conditions under which interstate commerce in oil and gas may proceed. And as such, the designation process “regulates and substantially affects commercial . . . activity which is plainly interstate.” *NAHB*, 130 F.3d at 1058 (Henderson, J., concurring).

The Texas State Petitioners’ second contention is that, “[e]ven if incidental emissions do ‘substantially affect’ interstate commerce, they are not ‘quintessentially economic activity’ ” and cannot be regulated under the Commerce Clause. State & County Br. 36. This contention is based on the Court’s decision in *Lopez*, which held the Gun-Free School Zones Act unconstitutional in part because the statutory provision at issue, which criminalized the possession of a gun in a school zone, had “nothing to do with ‘commerce’ or any sort of economic enterprise, however broadly one might define those terms.” *Lopez*, 514 U.S. at 560–61; *see also Morrison*, 529 U.S. at 610–11, 613. There are two answers to this contention.

First, ozone pollution itself has economic consequences for interstate commerce. The Congress so found in the course of amending the Clean Air Act. *See* S. REP. NO. 101-228, at 8 (1989) (noting that exposure to air pollution costs the United States \$40 billion annually in additional health care costs, and documenting health effects of ozone and other pollutants); *id.* (noting that “ozone causes annual crop losses of \$2 to \$3 billion per year”). Although we are not bound by congressional findings, they may assist us in “evaluat[ing] the legislative judgment that the activity in question substantially

including Wise County, Texas.” *Id.*; *see id.* at 13 (“Industrial Petitioners and members with operations in Wise County were immediately subjected to increased regulatory burdens due to the nonattainment designation.”).

affected interstate commerce.” *Lopez*, 514 U.S. at 562–63; see *Rancho Viejo*, 323 F.3d at 1069. Indeed, we have previously credited the Congress’ findings regarding ozone pollution, concluding that the Act’s “legislative history and EPA’s report to Congress substantiate the heavy impact ozone pollution has on national health care costs and national agricultural production.” *Allied Local*, 215 F.3d at 83.

Second, the activities that are ultimately regulated by the designation process are not the ozone precursor “emissions,” but rather the activities that produce the emissions. Those include the operation of power plants, gas processors, and vehicles that produce the emissions. See 42 U.S.C. § 7511a. As we explained in *Rancho Viejo*, the regulated activity in that case was a company’s “planned commercial development, not the arroyo toad that it threaten[ed].” 323 F.3d at 1072. The same point is true here. Just as the Endangered Species Act “does not purport to tell toads what they may or may not do,” *id.*, the Clean Air Act does not tell NO_x or VOCs what to do. Rather, it tells the commercial and industrial sources that produce those compounds what they may do.

As we noted in *Allied Local*, the Supreme Court has long made clear that “‘the power conferred by the Commerce Clause [is] broad enough to permit congressional regulation of activities causing air or water pollution, or other environmental hazards that may have effects in more than one State.’” *Allied Local*, 215 F.3d at 83 (quoting *Va. Surface Mining & Reclamation Ass’n*, 452 U.S. at 282) (emphasis added); *id.* (noting that the Supreme Court cited *Virginia Surface Mining and Reclamation Association* with approval in both *Lopez* and *Morrison*). “[B]ecause we are required to accord congressional legislation a ‘presumption of constitutionality,’ ” *Rancho Viejo*, 323 F.3d at 1069 (quoting *Morrison*, 529 U.S. at 607), the petitioners’ inability to

establish that emissions-producing sources in the State do not substantially affect interstate commerce “is fatal to [their] cause,” *id.*; see *Morrison*, 529 U.S. at 607 (“Due respect for the decisions of a coordinate branch of Government demands that we invalidate a congressional enactment only upon a plain showing that Congress has exceeded its constitutional bounds.”). The regulation of the sources of Wise County emissions through the Clean Air Act’s designation process lies well within the Congress’ authority to regulate interstate commerce.

iii. The Due Process Clause

The Texas State Petitioners’ third constitutional challenge maintains that the EPA’s designation of Wise County violated the Due Process Clause because the former Administrator of EPA Region 6, Al Armendariz, failed to disqualify himself from the proceedings.

According to the petitioners, Armendariz should have disqualified himself for four reasons. First, Armendariz has a history of working for environmental advocacy groups. Second, a report he authored as an advocate before joining the EPA concluded that emissions from the Barnett Shale were contributing significantly to local and global pollution. Third, a speech Armendariz gave after joining the EPA analogized his aggressive enforcement policy against oil and gas companies that “are not complying with the law” to the way “Romans used to conquer those villages in the Mediterranean” by “crucify[ing]” the first people they saw. Terrence Henry, *Texas EPA Official Apologizes for ‘Crucify Them’ Comments*, Apr. 26, 2012, State Impact NPR, <http://stateimpact.npr.org/texas/2012/04/26/epa-official-apologizes-for-crucify-comments> (quoting Armendariz). “You make examples out of people who . . . are not complying with

the law,” Armendariz said. “There’s a deterrent factor. . . . And they decide at that point that it’s time to clean up.” *Id.*²⁷ Finally, in the petitioners’ view, “[n]ormally, the prevailing wind direction and EPA-standard modeling would have led EPA to accept” Texas’s designation of Wise County as attainment. State & County Br. 38. All of this, the petitioners argue, “create[s] a presumption that the Agency’s mind was closed and it was unwilling or unable to rationally consider arguments against nonattainment.” *Id.* at 37.

In *Air Transport Association of America, Inc. v. National Mediation Board*, 663 F.3d 476 (D.C. Cir. 2011), we repeated this circuit’s approach to the kind of claim that the petitioners raise here. “Decisionmakers violate the Due Process Clause and must be disqualified,” we said, “when they act with an ‘unalterably closed mind’ and are ‘unwilling or unable’ to rationally consider arguments.” *Id.* at 487 (quoting *Ass’n of Nat’l Advertisers, Inc. v. FTC*, 627 F.2d 1151, 1170, 1174 (D.C. Cir. 1979)). “[A]n individual should be disqualified from rulemaking only when there has been a clear and convincing showing that the . . . member has an unalterably closed mind on matters critical to the disposition of the proceeding.” *Id.* (quoting *C & W Fish Co., Inc. v. Fox*, 931 F.2d 1556, 1564 (D.C. Cir. 1991) (internal quotation marks omitted)). The four arguments advanced by the Texas State Petitioners are insufficient to make that “clear and convincing” showing.²⁸

²⁷ After a video of the speech was discovered, Armendariz resigned. *Id.* Soon thereafter, the EPA promulgated the Wise County nonattainment designation.

²⁸ The Supreme Court has held that States are not “persons” within the meaning of the Due Process Clause. *See South Carolina v. Katzenbach*, 383 U.S. 301, 323–24 (1966); *see also Republic of*

Our decision in *C & W Fish Company* establishes that neither Armendariz' employment history nor the report he authored before joining the EPA required his disqualification. There, we considered the impartiality of an agency administrator who had previously served as the chairman of a group advocating for the precise agency policy at issue in the case, and who after his appointment remarked that there was "no question" that the policy should be implemented. *C & W Fish Co.*, 931 F.2d at 1564. Those circumstances, we said, did "not even approach a 'clear and convincing showing' that [the administrator] had an 'unalterably closed mind.'" *Id.* at 1565.

The petitioners' third argument is also unpersuasive. There is no doubt that Armendariz' "crucifixion" comments were offensive. But that does not suffice to make the requisite showing. The comments described Armendariz' general approach to enforcement, but were neither specifically about the designation process nor specifically targeted at production from the Barnett Shale. Accordingly, they did not reveal Armendariz' views on "matters critical to the disposition of the proceeding." *Ass'n of Nat'l Advertisers*, 627 F.2d at 1170. And even if they had, they would not alone demonstrate an unalterably closed mind on the subject. *See C & W Fish Co.*, 931 F.2d at 1565 (" 'We would eviscerate the proper evolution of policymaking were we to disqualify every administrator who has opinions on the correct course of his agency's future

Argentina v. Weltover, Inc., 504 U.S. 607, 619 (1992) (citing *Katzenbach*, 383 U.S. at 323–24); *Price v. Socialist People's Libyan Arab Jamahiriya*, 294 F.3d 82, 96 (D.C. Cir. 2002). Although one circuit has held that counties are protected in some circumstances, *see County of Santa Cruz v. Sebelius*, 399 F. App'x 174, 176 (9th Cir. 2010), we need not consider the issue because we find no violation here.

actions.’ ” (quoting *Ass’n of Nat’l Advertisers*, 627 F.2d at 1174)).

Finally, we cannot infer bias from the fact that, in the opinion of the petitioners, the computer modeling supported an attainment designation for Wise County. As we held in *C & W Fish Company*, “we reject the suggestion that we look to the adequacy of [an agency official’s] examination of the facts and issues in order to determine whether he was biased.” 931 F.2d at 1564. Rather, “[w]hether [the official] weighed the facts properly is to be examined only in determining if his decision was arbitrary or capricious.” *Id.* at 1564–65. And that is an examination that we separately undertake in section III.F.2, *supra*.

For the foregoing reasons, we reject the petitioners’ three constitutional challenges to the designation of Wise County as a nonattainment area.

4. The Remaining Challenges

Finally, the Texas State Petitioners argue that we should vacate the EPA’s Wise County nonattainment designation because the EPA (1) failed to comply with the Information Quality Act, (2) failed to promulgate regulations defining the terms “necessary” and “contribute,” (3) concluded that Wise County emissions “can” contribute to NAAQS violations when it was statutorily required to conclude that Wise County “did” contribute, and (4) failed to give them “fair notice” of the EPA’s requirements. *State & County Br.* 46–52. We reject all four contentions.

First, the Texas State Petitioners urge us to conclude that the Information Quality Act requires the EPA to use “the best available science and supporting studies conducted in accordance with sound and objective scientific practices” in

making NAAQS designations, State & County Br. 46 (citing *Prime Time Int'l Co. v. Vilsack*, 599 F.3d 678, 685–86 (D.C. Cir. 2010)), and that the EPA failed to do so here. But almost every court that has addressed an Information Quality Act challenge has held that the statute “creates no legal rights in any third parties,” *Salt Inst. v. Leavitt*, 440 F.3d 156, 159 (4th Cir. 2006);²⁹ see also *Harkonen v. U.S. Dep’t of Justice*, No. C 12-629 CW, 2012 WL 6019571, at *11 (N.D. Cal. Dec. 3, 2012) (collecting cases). And this Court has held that the Information Quality Act is not “an independent measure of EPA’s NAAQS decision.” *Mississippi*, 744 F.3d at 1347. The purpose of the Information Quality Act is to “ensur[e] and maximize[e] the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies” and does not constitute a statutory mechanism by which the EPA’s *conclusions* reached while making its nonattainment determinations can be challenged. See 44 U.S.C. § 3516 note (emphasis added).

Second, the Texas State Petitioners argue that the EPA should define the terms “contribute” and “necessary” through administrative rulemaking in order to rein in the “boundless override discretion” it uses to “commandeer[]” states to “enforce its massive regulatory scheme.” See State & County Br. 48. Our *Catawba County* holding forecloses this argument. There, we held that the EPA was “free to adopt a totality-of-the-circumstances test to implement a statute that confers broad discretionary authority.” *Catawba Cnty.*, 571 F.3d at 39. Finally, the Texas State Petitioners offer no reason why the word “necessary,” which the EPA reasonably

²⁹ But see *Prime Time*, 599 F.3d at 685–86 (affirming dismissal of Information Quality Act challenge on different grounds without addressing argument that the statute creates no legal rights in third parties).

interpreted as authorizing modification of a state's recommended designation that does "not meet the statutory requirements or [was] otherwise inconsistent with the facts or analysis deemed appropriate by the EPA," see 2008 Designations Rule, 77 Fed. Reg. at 30,090, must be defined via rulemaking.

Third, the Texas State Petitioners argue that the EPA exceeded its authority under the Clean Air Act because it concluded that Wise County emissions "can" contribute to NAAQS violations, whereas the Act authorizes a finding that Wise County "does" so contribute. See State & County Br. 50. This argument is premised on the EPA's response to a petition for reconsideration challenging the Wise County nonattainment designation, to which the EPA responded that "the Wise County emissions are large enough that they *can* contribute to ozone exceedances on certain days." EPA Response to Pet. for Reconsideration from Wise Cnty., Office of the Cnty Judge at 2 (emphasis added). But read *in toto*, the EPA's justification for including Wise County in the Dallas–Fort Worth nonattainment area was anything but theoretical:

Wise County [h]as 2008 NEI emissions of 11,911 tons of NO_x and 17,609 tons of VOC; there are 60 people per square mile; has a 2010 population of 59,127 with a growth rate of 5.9 percent between 2000 and 2010; total VMT is 969 million. The close proximity of these comparatively high emissions to violating monitors indicates that this county should be included in the nonattainment area. The high growth in these emissions is due in large part to growth in emissions from Barnett Shale gas production development, but also due to growth in population. Examination of back

trajectories indicates that at times emissions from Wise County contribute to observed violations in the area and also to observed violations that have helped set the DFW area DV in the past. Source apportionment modeling for a portion of an ozone season indicates that emissions from Wise County can contribute to observed violations in the DFW nonattainment area. These factors support the inclusion of Wise County in the nonattainment area.

Final Dallas–Fort Worth Area Designations at 23. Read in context, we conclude that the EPA in fact found that Wise County *does* contribute to NAAQS violations in the Dallas–Fort Worth area.

Fourth, the Texas State Petitioners argue the EPA failed to provide them with “fair notice” of its requirements. Even assuming the fair notice doctrine applies, *cf. Ark. Dep’t of Human Servs. v. Sebelius*, 818 F. Supp. 2d 107, 120–21 (D.D.C. 2011), the EPA did not violate it. The fair notice doctrine, which is couched in terms of due process, provides redress only if an agency’s interpretation is “so far from a reasonable person’s understanding of the regulations that they could not have fairly informed the regulated party of the agency’s perspective.” *United States v. Chrysler Corp.*, 158 F.3d 1350, 1354 (D.C. Cir. 1998) (alteration omitted). Here, the EPA not only provided the 2008 Guidance to aid the states in making their initial designations, it also provided a preliminary technical support document to each state before finalizing any of its proposed modifications to the state’s initial designations. *See, e.g.*, Preliminary Dallas–Fort Worth Area Designations. The technical support document, in turn, gave each state a precise explication of all proposed EPA

modifications as a roadmap to use during the 120-day comment period. Simply put, the EPA set forth its analysis, provided an opportunity to rebut its conclusions and ultimately explained why it had not changed its mind. Accordingly, the Texas State Petitioners' fair notice doctrine argument is meritless.

For the foregoing reasons, the consolidated petitions for review are denied.

So ordered.