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**ORAL ARGUMENT NOT YET SCHEDULED**

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No. 18-1167

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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**SIERRA CLUB,**  
*Petitioner,*

v.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,**  
*Respondents.*

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ON PETITION FOR REVIEW OF ACTION BY THE UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

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**BRIEF OF INTERVENOR-RESPONDENTS  
AIR PERMITTING FORUM, AMERICAN CHEMISTRY COUNCIL,  
AMERICAN COKE AND COAL CHEMICALS INSTITUTE, AMERICAN  
FOREST & PAPER ASSOCIATION, AMERICAN FUEL &  
PETROCHEMICAL MANUFACTURERS, AMERICAN IRON AND STEEL  
INSTITUTE, AMERICAN WOOD COUNCIL, CHAMBER OF  
COMMERCE OF THE UNITED STATES OF AMERICA, AND UTILITY  
AIR REGULATORY GROUP**

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DATED: April 15, 2019

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**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES**

Pursuant to Circuit Rule 28(a)(21), Intervenor-Respondents state the following:

**A. Parties, Intervenors, and Amici**

All parties to this case are listed in Petitioner's brief.

**B. Rulings Under Review**

Petitioner seeks review of a memorandum from Peter Tsirigotis, Director of EPA's Office of Air Quality Planning and Standards, dated April 17, 2018, titled "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program."

**C. Related Cases**

None at present.

DATED: June 11, 2019

Respectfully submitted,

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## **RULE 26.1 DISCLOSURE STATEMENT OF INTERVENOR-RESPONDENTS**

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and D.C. Circuit Rule 26.1, Intervenor-Respondents submit the following statements:

The Air Permitting Forum (“APF”) is a trade association, within the meaning of D.C. Circuit Rule 26.1, that advocates for the appropriate implementation of the Clean Air Act and other relevant statutes on behalf of its member companies. APF also participates in administrative proceedings before the U.S. Environmental Protection Agency (“EPA”) under environmental statutes and in litigation arising from those proceedings that affect its members. APF’s members operate manufacturing facilities throughout the U.S. and as a result would be subject to the requirements at issue in the memorandum challenged in this case. APF has not issued shares or debt securities to the public, has no parent company, and no publicly-held company has a 10 percent or greater ownership interest in APF.

The American Chemistry Council (“ACC”) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people’s lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®; common sense advocacy designed to address major public policy issues; and health and environmental

research and product testing. The business of chemistry is a \$768 billion enterprise and a key element of the nation's economy. It is among the largest exporters in the nation, accounting for 14 percent of all U.S. goods exported. ACC states that it is a "trade association" for purposes of Circuit Rule 26.1(b). ACC has no parent corporation, and no publicly held company has 10 percent or greater ownership in ACC.

The American Coke and Coal Chemicals Institute ("ACCCI") is an association for the metallurgical coke and coal chemicals industry. ACCCI members include U.S. merchant coke producers and integrated steel companies with coke production capacity, as well as the companies producing coal chemicals in the U.S. ACCCI states that it is a "trade association" for purposes of Circuit Rule 26.1(b). ACCCI has no parent company, and no publicly held company has a 10 percent or greater ownership interest in ACCCI.

The American Forest & Paper Association ("AF&PA") serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative – *Better Practices, Better Planet 2020*. The forest products industry accounts for approximately four percent of the total U.S.

manufacturing GDP, manufactures over \$200 billion in products annually, and employs nearly 900,000 men and women. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 45 states. AF&PA states that it is a “trade association” for purposes of Circuit Rule 26.1(b). AF&PA has no parent corporation, and no publicly held company has a 10 percent or greater ownership in AF&PA.

American Fuel & Petrochemical Manufacturers (“AFPM”) is a national trade association whose members comprise virtually all U.S. refining and petrochemical manufacturing capacity. AFPM operates for the purpose of promoting the general commercial, professional, legislative, or other interests of its membership. AFPM has no parent companies, and no publicly held company has a 10 percent or greater ownership interest in AFPM. AFPM is a “trade association” within the meaning of Circuit Rule 26.1(b).

The American Iron and Steel Institute (“AISI”) serves as the voice of the North American steel industry and represents 21 member companies, including integrated and electric furnace steelmakers, accounting for the majority of U.S. steelmaking capacity with facilities located in 41 states, Canada, and Mexico, and approximately 120 associate members who are suppliers to or customers of the steel industry. AISI participates in administrative proceedings before EPA under environmental statutes and in litigation arising from those proceedings that affect

its members. AISI states that it is a “trade association” for purposes of Circuit Rule 26.1(b). AISI has no parent corporation, and no publicly held company has a 10 percent or greater ownership in AISI.

The American Wood Council (“AWC”) is the voice of North American wood products manufacturing, an industry that provides approximately 400,000 men and women in the U.S. with family-wage jobs. AWC represents 86 percent of the structural wood products industry, and members make products that are essential to everyday life from a renewable resource that absorbs and sequesters carbon. Staff experts develop state-of-the-art engineering data, technology, and standards for wood products to assure their safe and efficient design, as well as provide information on wood design, green building, and environmental regulations. AWC states that it is a “trade association” for purposes of Circuit Rule 26.1(b). AWC has no parent corporation and no publicly held company has a 10 percent or greater ownership interest in AWC.

The Chamber of Commerce of the United States of America (the “Chamber”) is the world’s largest business federation, representing 300,000 direct members and indirectly representing the interests of more than three million companies and professional organizations of every size, in every industry sector, and from every region of the country. The Chamber is a “trade association” within

the meaning of Circuit Rule 26.1(b). No publicly held company has a 10 percent or greater ownership interest in the Chamber.

The Utility Air Regulatory Group (“UARG”) is a not-for-profit association of individual electric generating companies and national trade associations. UARG participates on behalf of certain of its members collectively in Clean Air Act administrative proceedings that affect electric generators and in litigation arising from those proceedings. UARG has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a 10 percent or greater ownership interest in UARG.

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## GLOSSARY

Act	Clean Air Act
EPA	U.S. Environmental Protection Agency
NAAQS	National Ambient Air Quality Standards
PM <sub>2.5</sub>	Fine Particulate Matter
SILs	Significant Impact Levels

## INTRODUCTION

This case concerns a U.S. Environmental Protection Agency (“EPA”) guidance document addressing how applicants for preconstruction permits may demonstrate their proposed sources will not cause or contribute to violations of certain Clean Air Act (“Act”) air quality standards.<sup>1</sup> Under the Guidance, a permitting authority may allow the applicant to make this demonstration through a streamlined analysis if the source’s projected effect on air quality is below specified “significant impact levels” (“SILs”). EPA’s recommended SILs represent impacts that are so small as to be indistinguishable from inherent variability in the airshed that would occur even without the proposed source.

Sierra Club’s challenge to the Guidance lacks merit. Sierra Club mischaracterizes the Guidance in a transparent effort to equate it with a previous SIL rulemaking this Court vacated at EPA’s request in 2013. But unlike that rulemaking, the Guidance leaves permitting authorities discretion to apply or not apply the recommended SILs, and to require whatever analysis is necessary of a proposed source on a case-by-case basis to satisfy the Act’s preconstruction review requirements. Thus, Sierra Club is wrong that the Guidance authorizes violations

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<sup>1</sup> Mem. from Peter Tsirigotis, Dir., Office of Air Quality Planning & Standards to EPA Reg’l Air Div. Dirs., “Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program” (Apr. 17, 2018), JA1-21 (“Guidance”).

of air quality standards. Permitting authorities must reach their own conclusions for each permit based on the record, regardless of the SILs.

Rather, the Guidance represents EPA's reasonable interpretation of the Act. It provides tools to streamline permitting by screening out sources with trivial impacts from unnecessarily burdensome requirements, advancing the Act's goal of promoting development while preserving air quality. Accordingly, the petition should be denied.

## **STATUTES AND REGULATIONS**

All applicable statutes and regulations are contained in the addendum attached to this brief or the addenda to Sierra Club's and EPA's briefs.

## **STATEMENT OF THE CASE**

Intervenor-Respondents incorporate by reference EPA's Statement of the Case, EPA Br. 3-22, and provide the following additional information.

### **I. Prevention of Significant Deterioration**

The Act's "Prevention of Significant Deterioration" program, which applies in parts of the country where air quality is better than required by EPA-established national ambient air quality standards ("NAAQS"), is implemented in part through the preconstruction permitting of all new or modified "major emitting facilities." 42 U.S.C. §§ 7470-7479. It prohibits increases in pollutants' ambient concentrations that would produce NAAQS violations or would exceed baseline



levels above specific maximum allowable amounts, known as “increments,” established by Congress and EPA. *See id.* § 7473; 40 C.F.R. §§ 51.166(c)(1), 52.21(c). In establishing this program, Congress sought to balance the goals of protecting existing air quality while promoting economic growth in areas that already meet EPA’s standards. *See* 42 U.S.C. § 7470(3) (stating goal of “insur[ing] that economic growth will occur in a manner consistent with the preservation of existing clean air resources”).

Those wishing to build or modify major emitting facilities must obtain a permit establishing stringent emission limits for the facility, *id.* §§ 7475(a), 7479(3), and must undertake an air quality analysis to demonstrate the facility’s emissions

will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration [i.e., increment] for any pollutant in any area to which this part applies more than one time per year, [or] (B) [NAAQS] in any air quality control region[.]

*Id.* § 7475(a)(3). As part of that demonstration, EPA’s regulations also call for each permit applicant to conduct a broader “source impact analysis” to demonstrate that “allowable emission increases from the proposed source or modification, *in conjunction with all other applicable emissions increases or reductions,*” would not cause or contribute to violations of any NAAQS or increment. 40 C.F.R. §§ 51.166(k)(1), 52.21(k)(1) (emphasis added).

The Prevention of Significant Deterioration program is primarily implemented at the state level. The Act requires each state to develop and submit for EPA approval a plan for attaining and maintaining the NAAQS, which must include provisions implementing the Prevention of Significant Deterioration permitting program. 42 U.S.C. § 7410(a)(1), (a)(2)(C). The state's permitting provisions must be consistent with EPA's regulations setting forth the structure and requirements of an approvable program. *See* 40 C.F.R. § 51.166. But once EPA approves the state's program, EPA's role in individual permit decisions is significantly limited. It is the state's responsibility to determine whether the proposed new or modified source satisfies the Act's requirements, including the obligation not to "cause, or contribute to" a violation of a NAAQS or increment, and to issue or deny the permit. Where a state lacks an EPA-approved permitting program, EPA administers that program pursuant to its own regulations. *See id.* § 52.21.

## **II. Previous Applications of SILs**

The § 7475(a)(3) source impact analysis can be the most resource-intensive and time-consuming part of the preconstruction permitting process. As EPA has recognized, this analysis can be laborious and costly and can substantially delay the permit application process. 75 Fed. Reg. 64,864, 64,891 (Oct. 20, 2010), JA803; *see* Guidance at 5, JA6.

In order to allow permitting authorities and permit applicants to properly allocate their resources, EPA has for decades included regulatory thresholds within its preconstruction permitting program designed to help distinguish between proposed sources that may appreciably impact air quality and those that will not. *See* EPA, Legal Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act, at 9-12 (undated) (“Legal Memorandum”), JA30-33. Sources in the former category must undertake extensive modeling analyses to satisfy § 7475(a)(3), sometimes requiring the permit applicant to evaluate—and permit-issuing authorities to consider—not only the impacts of the proposed new or modified source, but also the impacts of potentially dozens or even hundreds of “nearby sources” and background sources. 40 C.F.R. pt. 51, app. W, Tbl. 8-2.

Sources in the latter category may be able to satisfy § 7475(a)(3) through more limited (although still significant) analyses. Such sources may be allowed to model the impact on air quality of only their emissions and compare the results of that modeling to the relevant SILs. Such modeling can often be performed using a model preapproved by EPA for this purpose. 40 C.F.R. pt. 51, app. W, app. A, A.0(1). Conducting the modeling necessary for comparison of air quality impacts of a proposed source to SILs for PM<sub>2.5</sub> or ozone is more complicated, however. Because both PM<sub>2.5</sub> and ozone are formed in the air through reactions of one

source's emissions with those of other sources, a source's impact on PM<sub>2.5</sub> and ozone cannot be characterized by modeling only that source, instead requiring use of a complex photochemical transport model. Mem. from Tyler Fox, Office of Air Quality Planning & Standards, to EPA Reg'l Modeling Contacts (Aug. 4, 2017), at 1, [https://www3.epa.gov/ttn/scram/guidance/clarification/20170804-Photochemical\\_Grid\\_Model\\_Clarification\\_Memo.pdf](https://www3.epa.gov/ttn/scram/guidance/clarification/20170804-Photochemical_Grid_Model_Clarification_Memo.pdf). These models require detailed meteorological information and emissions data for the proposed source and all other sources in the modeling domain. Although EPA makes such data available to modelers, these data are only “a starting point.” *Id.* at 6. Moreover, EPA has not preapproved a model for this purpose. *Id.* at 1-2.

EPA has long interpreted § 7475(a)(3) to allow a permitted source to have a trivial—even if arguably detectable—impact on air quality because such an insignificant impact cannot be said to “cause, or contribute to” a NAAQS or increment violation. As early as 1978, EPA explained it did not intend the Prevention of Significant Deterioration program to require the permitting authority to address impacts “below certain levels.” 43 Fed. Reg. 26,388, 26,398 (June 19, 1978), JA700. EPA guidance in 1980 “continue[d] to apply th[is] significant impact concept” to preconstruction permitting. Mem. from Richard G. Rhoads, Office of Air Quality Planning & Standards, to Alexandria Smith, EPA Region X, “Interpretation of ‘Significant Contribution’” (Dec. 16, 1980) at 1,

<https://www.epa.gov/sites/production/files/2015-07/documents/reaffirm.pdf>.

EPA's 1990 manual on preconstruction permitting explained EPA "does not require a full impact analysis for a particular pollutant when emissions of that pollutant ... would not increase ambient concentrations by more than prescribed significant ambient impact levels." EPA, "New Source Review Workshop Manual," (Oct. 1990) (draft) ("NSR Manual") at C.24, JA368.

EPA has codified SILs for use in certain scenarios to determine whether a proposed source or modification *will* be considered to cause or contribute to violations of a NAAQS. 40 C.F.R. § 51.165(b)(2). Where this rule applies, if the source's impact on air quality exceeds a SIL at a location that does not or would not meet the relevant NAAQS, the source is deemed to cause or contribute to a violation without further analysis.

EPA also allows (but does not require) permitting authorities, exercising their discretion on a case-by-case basis, to rely on SILs to demonstrate that a proposed source *will not* cause or contribute to a NAAQS violation. In this context, SILs may be used in an analysis of the proposed source's impacts alone to find a full cumulative impact analysis accounting for other sources would be unnecessary to demonstrate the proposed source would not cause or contribute to a violation. *See* NSR Manual at C.24-C.25, C.51, JA368-69, JA370; *Sur Contra La Contaminación v. EPA*, 202 F.3d 443, 448 (1st Cir. 2000) (upholding reliance on

SIL for this purpose). The permitting authority may also rely on SILs to find that, where a full cumulative analysis is performed and predicts a NAAQS violation will occur, the proposed source nonetheless cannot be deemed to “cause, or contribute” to that violation because its air quality impact is too miniscule. *See* NSR Manual at C.52, JA371; *In re Prairie State Generating Co.*, 13 E.A.D. 1, 103-09 (EAB 2006), JA376-82. In this latter application, known as a “culpability” analysis, reliance on the SIL to authorize construction of the proposed source would not allow a projected NAAQS or increment violation to go unaddressed. Instead, if the permitting authority issues a permit for the new source, it must also revise its implementation plan to prevent the violation by requiring further emission reductions from the existing sources deemed responsible for the violation. *See* NSR Manual at C.52, JA371.

To identify appropriate SILs for use in making a negative cause-or-contribute finding, EPA has supported comparing a source’s air quality impact to the values codified at 40 C.F.R. § 51.165(b)(2) for the NAAQS addressed there. For newer NAAQS not addressed in that section, EPA issued guidance memoranda in 2010 providing recommended SILs. Mem. from Stephen D. Page, Dir., EPA Office of Air Quality Planning & Standards to EPA Reg’l Air Div. Dirs., “Guidance Concerning the Implementation of the 1-hour SO<sub>2</sub> NAAQS for the Prevention of Significant Deterioration Program” (Aug. 23, 2010) (“SO<sub>2</sub> SIL

Guidance”), JA412-30; Mem. from Stephen D. Page, Dir., EPA Office of Air Quality Planning & Standards to EPA Reg’l Air Div. Dirs., “Guidance Concerning the Implementation of the 1-hour NO<sub>2</sub> NAAQS for the Prevention of Significant Deterioration Program” (June 29, 2010) (“NO<sub>2</sub> SIL Guidance”), JA383-411. EPA emphasized use of SILs does not relieve a permitting authority of its obligation to justify its “cause or contribute” finding for each proposed source on a case-by-case basis with adequate record support and analysis. *See* SO<sub>2</sub> SIL Guidance at 5, JA418 (application of SIL “should be supported by a record in each instance that shows the value represents a *de minimis* impact on” the NAAQS).

As the legal basis for issuing SILs, EPA has previously cited its inherent authority under the Act to exempt *de minimis* circumstances from its regulatory requirements. *Id.* at 4 n.1, JA417; NO<sub>2</sub> SIL Guidance at 11, JA393. In *Alabama Power Co. v. Costle*, this Court held that because “the law does not concern itself with trifling matters,” “[c]ourts should be reluctant to apply the literal terms of a statute to mandate pointless expenditures of effort.” 636 F.2d 323, 360 (D.C. Cir. 1979). Applying this principle in the context of § 7475(a)(3), EPA concluded an individual source’s impact on air quality may be so trivial that it should not be considered to cause or contribute to a projected or existing NAAQS violation and a full “cumulative source impact analysis ... would only yield information of trivial or no value.” NO<sub>2</sub> SIL Guidance at 11, JA393. In both memoranda, EPA

identified the SIL representing a *de minimis* impact as 4 percent of the relevant NAAQS. *Id.* at 12, JA394; SO<sub>2</sub> SIL Guidance at 6, JA419.

Also in 2010, EPA promulgated a rule establishing SILs for the fine particulate matter (“PM<sub>2.5</sub>”) NAAQS. 75 Fed. Reg. 64,864 (Oct. 20, 2010), JA776-819. In that rule, EPA again intended to leave permitting authorities discretion to “determine when it may be appropriate to conclude that even a *de minimis* impact [i.e., below the SILs] will ‘cause or contribute’ to an air quality problem and to seek remedial action from the proposed new source or modification.” *Id.* at 64,892, JA804. But EPA unintentionally promulgated regulatory text that did not provide the promised discretion. *See Sierra Club v. EPA*, 705 F.3d 458, 463-64 (D.C. Cir. 2013). Upon judicial review, because the SILs as promulgated would “exempt a proposed source from the requirements of the Act without affording the permitting authorities discretion” to require additional analysis in particular circumstances, EPA requested—and this Court granted—their remand and vacatur. *Id.* at 464-66. The Court explicitly declined to “decide the EPA’s authority to promulgate SILs” because the question was “not prudentially ripe.” *Id.* at 464.

### **III. The Challenged Guidance**

On remand, EPA opted to recommend new PM<sub>2.5</sub> SILs in an April 17, 2018 “non-binding guidance” document rather than in a binding rule. Guidance at 2,



JA3. Unlike the rule vacated in *Sierra Club*, the Guidance also recommends SILs for the ozone NAAQS and the PM<sub>2.5</sub> increments. *Id.* at 15-17, JA16-18. EPA decided to issue guidance rather than a rule in order to develop experience and information on how and when permitting authorities use their discretion to apply—or, importantly, not apply—these SILs in permit decisions before codifying them in a rule. *Id.* at 2, JA3.

The fundamental premise underlying EPA’s Guidance is that a source may have such a miniscule effect on air quality that its modeled impact is indistinguishable from the normal variability in air quality that would be observed even if the source is not built or modified. EPA, “Technical Basis for the EPA’s Development of the Significant Impact Thresholds for PM<sub>2.5</sub> and Ozone,” (Apr. 2018) (“Technical Basis”) at 6, JA41; *see* Guidance at 10-11, JA11-12 (stating selected values are “indistinguishable from the inherent variability in the measured atmosphere and may be observed even in the absence of the increased emissions”). EPA relies on the bedrock mathematical concept of “statistical significance,” which uses commonly accepted probabilistic tools to determine whether an observed value is definitively different from a baseline data population or simply within the range of random variability.<sup>2</sup> *See* Guidance at 12, JA13; Technical

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<sup>2</sup> Accordingly, when EPA uses the term “significant” for purposes of the SILs and the § 7475(a)(3) cause-or-contribute analysis, it must be distinguished from the concept of “significant contribution” used elsewhere in the Act. “Significant

Basis at 12-16, JA47-51 (describing concept of statistical significance generally). A test for statistical significance, in this context, is used to determine whether the proposed source has *any* impact that can be distinguished from what would have happened in its absence. If a proposed source's modeled impact on air quality is not significantly different (in a statistical sense) from baseline levels, it should not be considered to "cause, or contribute to" a violation of the NAAQS or increments because the source cannot confidently be said to have any impact at all. Guidance at 11, JA12.

EPA's brief summarizes the Guidance's methodology for calculating SILs representing statistically insignificant increases in ozone and PM<sub>2.5</sub>. EPA Br. 13-18. EPA analyzed nationwide air quality data from 2000-2016 and determined that for each pollutant and averaging time, variability was relatively consistent at different levels of air quality and across geographic locations. Technical Basis at 23-37, JA58-72. Based on these data, EPA calculated various "confidence intervals" for each pollutant and averaging time, each of which represents a range of values beyond which EPA can say with a specified level of confidence that a predicted impact is statistically significantly different from baseline air quality. Guidance at 12-13, JA13-14. Under common statistical practices, the smallest

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contribution" is generally used in the Act to require that a source's impact be of a certain *magnitude*, whereas "statistical significance" is used to determine whether there is *any discernible impact at all*. See Section I *infra*.

confidence interval generally considered to indicate a change *is* statistically significant is 68 percent. *Id.* at 13, JA14. Thus, to define a level of air quality impact that *is not* statistically significant from baseline levels, EPA conservatively selected a smaller confidence interval of 50 percent. *Id.*

EPA then applied that confidence interval to each NAAQS to determine what impact would be indistinguishable from random variation in air quality in an area just meeting the NAAQS. *Id.* at 15-16, JA16-17. The resulting SILs, summarized at pages 18-20 of EPA's brief, are even smaller (as a percentage of the applicable NAAQS) than those identified as *de minimis* for other NAAQS.<sup>3</sup> EPA's methodology was subject to external peer review. Guidance at 11 n.40, JA12.

The Guidance also explains the role of SILs in the permit process for permitting authorities that choose to use them. EPA emphasized the Guidance's voluntary nature and the discretion permitting authorities retain, noting the Guidance merely "*recommends* that permitting authorities *consider* using these SIL values for ozone and PM<sub>2.5</sub> *on a case-by-case basis.*" *Id.* at 17, JA18 (emphases added). Permitting authorities remain free "not to use SILs as described here, either in specific cases or programmatically," or to "use other values that may be justified," whether lower or (in some cases) higher than the Guidance recommends.

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<sup>3</sup> The SILs for the ozone (8-hour average), PM<sub>2.5</sub> (24-hour average), and PM<sub>2.5</sub> (annual average) NAAQS are 1.4, 3.4, and 1.7 percent of the NAAQS, respectively.

*Id.* at 19, JA20. Notably, permitting authorities may depart from the recommended SILs based on different policy choices, such as the desire to use a narrower confidence interval than EPA or to focus on regional or local rather than nationwide air quality variability. *Id.* at 19-20, JA20-21.

EPA also emphasized that even where a permitting authority utilizes the recommended SILs, it must determine the proposed source will not cause or contribute to a NAAQS or increment violation, and that duty is not necessarily satisfied simply because the source's impacts are below the SILs. *Id.* at 3, JA4 (“A determination that a proposed source does not cause or contribute to a violation can only be made by a permitting authority on a permit-specific basis after consideration of the permit record.”). Simply citing the Guidance's SILs without further analysis is insufficient: “[t]he case-by-case use of SIL values should be justified in the record for each permit.” *Id.* at 19, JA20. The permitting authority must weigh the rationale and information underlying EPA's recommended SILs against “any additional information in the record that is relevant to making the required demonstration.” *Id.* And unlike the 2010 rule vacated in *Sierra Club*, the Guidance not only allows but *encourages* permitting authorities to conduct further analysis if they believe a proposed source may cause or contribute to a violation despite having impacts below the recommended SILs. *Id.* at 18, JA19. While EPA believes the recommended SILs “would be sufficient *in most situations*” to support

a negative cause-or-contribute finding, *id.* at 3, JA4 (emphasis added), in individual cases,

if a permitting authority has a basis for concern that a demonstration that a proposed source's impact is below the relevant SIL value at all locations is not sufficient to demonstrate that the proposed source will not cause or contribute to a violation, then the permitting authority should require additional information from the permit applicant to make the required air quality impact demonstration.

*Id.* at 18, JA19.

### SUMMARY OF ARGUMENT

Sierra Club's challenge lacks merit. Section 7475(a)(3) does not define the level of impact that is required to "cause, or contribute to" a NAAQS or increment violation, leaving permitting authorities discretion to interpret those terms. The Guidance recommends a source should generally not be deemed to "cause, or contribute to" a violation if its impact is statistically indistinguishable from the status quo. This is a reasonable interpretation of section 7475(a)(3) and is consistent with the Prevention of Significant Deterioration program's overall purpose of promoting economic growth while protecting current air quality.

In arguing that the Guidance is arbitrary and capricious and authorizes NAAQS or increment violations, Sierra Club misconstrues EPA's SILs program and ignores permitting authorities' independent obligation to justify their § 7475(a) analysis for each permit on a case-by-case basis. The Guidance merely provides *recommended* SILs and supporting documentation that permitting authorities *may*

decide to use in individual permit decisions. Permitting authorities remain free to use different SILs, or not use them at all. Further, SILs are not dispositive on whether a proposed source will cause or contribute to NAAQS or increment violations. That determination must be made in each case by the permitting authority on a permit-specific record.

### STANDING

To the extent an intervenor for respondents in a petition for review of agency action must demonstrate Article III standing, Intervenor-Respondents here meet that requirement. *See Hunt v. Wash. State Apple Advert. Comm'n*, 432 U.S. 333, 343 (1977). Individual members of Intervenor-Respondents would have standing in their own right because their interests would be harmed if Sierra Club prevails in this challenge. Those members' interests are germane to each Intervenor-Respondent's organizational purpose of participating in EPA proceedings under the Act and related litigation affecting its members. Nothing about this case requires participation of individual members.

Where parties are the subject of governmental regulation, "there is ordinarily little question that the action or inaction has caused [them] injury." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561-62 (1992). Intervenor-Respondents' members own sources, or will seek to construct new sources in the future, that are subject to the Prevention of Significant Deterioration permitting program, and they

commonly rely on SILs as a tool to make the statutory demonstrations required to obtain preconstruction permits. *See* Comments of the NAAQS Implementation Coalition at 3-4 (Sept. 30, 2016), JA534-35. As the attached declarations demonstrate, members of the American Chemistry Council and American Fuel & Petrochemicals Manufacturers have relied on SILs in specific permit proceedings and intend to do so in future proceedings as appropriate. Decl. of Cheryl Steves (Apr. 11, 2019) (Ex. A); Decl. of Matthew Hodges (Apr. 15, 2019) (Ex. B); Decl. of Brian Mitchell (Apr. 12, 2019) (Ex. C). One declarant notes that without SILs, the additional modeling required would have delayed the project by months or years. Ex. A ¶ 8. Indeed, it is obvious that the members of each Intervenor-Respondent own sources subject to the Prevention of Significant Deterioration program.

If Sierra Club prevails here, Intervenor-Respondents' members may be restricted or barred from relying on the specified SILs in permit proceedings, which would increase the costs of obtaining preconstruction permits and could force sources with negligible air quality impacts to perform unnecessary, time-consuming, and expensive modeling with no environmental benefit, or even to abandon planned projects altogether. Notably, Sierra Club's arguments challenge permitting authorities' ability to use SILs *at all*, suggesting a decision for Sierra

Club here could call into question the ability to rely on any SIL in permit proceedings.

## ARGUMENT

### **I. Permitting Authorities May Determine What Level of Impact “Causes or Contributes” to a NAAQS or Increment Violation.**

Section 7475(a)(3) requires the owner or operator of a proposed new or modified source to “demonstrate[] ... that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any” increment (more than once per year) or NAAQS. 42 U.S.C. § 7475(a)(3). But the Act does not define how the source must make this demonstration, including what degree of impact on air quality should be deemed to “cause or contribute to” a violation of a NAAQS or increment. Accordingly, permitting authorities may determine how to assess whether a proposed source’s impact is meaningful enough to cause or contribute to a violation. *See Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 35 (D.C. Cir. 2009) (finding because related statutory provision “conveys no clear-cut approach for determining whether an area contributes” to nearby NAAQS violation, agency could determine sufficient level).

Sierra Club argues § 7475(a)(3) must be read such that a source necessarily “causes or contributes” to a violation if it is projected to have *any* modeled impact on air quality in an area with some violation of the NAAQS or increment, or if its modeled impact is greater than the difference between the NAAQS or increment



and baseline air quality. Pet. Br. 30-40. But nothing in the Act compels this reading, and Sierra Club's argument is inconsistent with the statutory text and this Court's precedent.

The Act does not define the phrase "cause, or contribute to." In *Sierra Club*, this Court held Congress did not "specif[y] how the owner or operator of a proposed source or modification must demonstrate compliance" with § 7475(a)(3). *Sierra Club*, 705 F.3d at 465. Moreover, the Court has held the term "contribute," as used elsewhere in the Act, does not compel any particular significance threshold (or lack thereof). *See Env'tl. Def. Fund, Inc. v. EPA*, 82 F.3d 451 (D.C. Cir. 1996) ("*EDF*"); *Catawba Cnty.*, 571 F.3d at 39.

*EDF* concerned the phrase "contribute to" used in 42 U.S.C. § 7506(c), which states transportation plans, programs, and projects may be found to conform to a state's implementation plan for a NAAQS if they "contribute to annual emissions reductions consistent with" certain statutory requirements for overall reductions. 82 F.3d at 458 (quoting 42 U.S.C. § 7506(c)(3)(A)(iii)). The petitioners argued "contribute to" must be read to unambiguously require some absolute reduction in emissions, while EPA argued a plan could "contribute to" emission reductions in other ways, such as by helping to avoid increases that would otherwise have happened. *EDF*, 82 F.3d at 459. The Court agreed with EPA that the phrase "'contribute to' ... is ambiguous ... [because it] leaves wide

open the question of how large a reduction in emissions must be to constitute a contribution.” *Id.*

*Catawba County* concerned § 7407(d), which requires EPA to designate an area as nonattainment for a NAAQS if it “contributes to ambient air quality in a nearby area” that exceeds the NAAQS. 42 U.S.C. § 7407(d)(1)(A)(i). The Court noted the statute’s use of the vague word “contribute,” which it previously has “expressly found ambiguous as used in other sections of the Act,” itself generally “suggest[s] a congressional intent to leave unanswered questions to an agency’s discretion.” 571 F.3d at 35. The petitioners argued the term “contribute” must be read to incorporate a “significant causal relationship,” citing a dictionary definition. *Id.* at 38. But the Court disagreed, noting dictionaries differ as to whether “contribute” necessarily contains any “threshold level of significance,” which “alone suggests an ambiguity that fatally undermines petitioners’ *Chevron* step one argument.” *Id.* at 39. Accordingly, the statute was “ambiguous as to how EPA should measure contribution and what degree of contribution is sufficient.” *Id.*

Sierra Club here nevertheless argues that as a matter of the statute’s plain text, *any* impact to air quality, no matter how trivial, occurring in an area with a projected NAAQS or increment violation must be deemed to “cause or contribute” to that violation. Sierra Club claims where Congress intended to provide a

threshold for what qualifies as “contribution,” it used the phrases “*significant contribution*” or “*significantly contribute*.” Pet. Br. 35-37. By authorizing use of SILs, Sierra Club asserts, EPA has converted the § 7475(a)(3) analysis into a “cause, or *significantly contribute*” test despite Congress’s deliberate choice to not use that language.

Sierra Club’s argument is mistaken for several reasons. First, simply noting a statutory term’s presence in one section and absence in the other “rarely if ever suffices [to provide] the direct answer that *Chevron* step one requires” as to the meaning of the plain text. *Catawba Cnty.*, 571 F.3d at 36 (internal quotation marks and citation omitted). To the contrary, “a congressional mandate in one section and silence in another often suggests not a prohibition but simply a decision *not to mandate* any solution in the second context, i.e., to leave the question to agency discretion.” *Id.* (internal quotes and citation omitted). In other words, Congress may have declined to specify “significant contribution” in § 7475(a)(3) simply to leave permitting authorities the discretion to determine what minimum degree of impact suffices.

Second, Sierra Club cites *Bluewater Network v. EPA* for the proposition that because Congress chose to specify “significant contribution” as the appropriate test for some circumstances but only requires “contribution” for others, the term “contribute” should not be read to have any “inherent connotation as to the

magnitude or importance of the relevant ‘share’ in the effect.” 370 F.3d 1, 13 (D.C. Cir. 2004). But *Bluewater Network* is not on point, for the reasons explained in EPA’s brief. EPA Br. 42-43. Moreover, in the Guidance EPA did not read the term “significant” into § 7475(a)(3) as Sierra Club suggests. As used in the Act, “significant contribution” typically denotes an impact that is of appreciably greater degree, magnitude, or type than other contributions. See Legal Memorandum at 9 n.6, JA30. But EPA’s purpose in the Guidance is simply to determine what impact constitutes a “contribution” in the first place.

This Court’s decisions recognize that even where the Act does not use the phrase “significantly contribute,” the term “contribute” may itself be read to connote some minimum threshold of meaningful impact. In *Catawba County*, where the statute required nonattainment designations for areas that “contribute[] to ambient air quality in a nearby area” exceeding the NAAQS, the Court noted the Act “is ambiguous as to how EPA should measure contribution *and what degree of contribution is sufficient*,” indicating an area may have some nonzero impact on a neighboring area’s air quality that nonetheless does not qualify as “contribution.” 571 F.3d at 39 (emphasis added). Likewise in *EDF*, where the provision in question merely required transportation plans to “contribute” to annual emissions reductions, the Court did not hold that this term unambiguously means any detectable reduction in emissions would suffice. Instead, it found “contribute”

could be read to refer to a broad range of impacts from “any nonzero reduction” to the “entire” sum of the reductions targeted by that program. 82 F.3d at 459.

Even in *Bluewater Network*, which emphasized the distinction between “contribution” and “significant contribution,” this Court indicated the term “contribute” only requires EPA to address impacts on air quality that are “nontrivial” or “more than [] *de minimis*.” See 370 F.3d at 14, 15. Thus, here EPA has “reasonably exercis[ed] the discretion that Congress delegated it” by “interpret[ing] ‘contribute’ to mean ‘sufficiently contribute.’” *Catawba Cnty.*, 571 F.3d at 39.

To be sure, EPA uses the word “significant” in its Guidance to describe the “significant impact levels” it is recommending. But this does not import a “significant contribution” requirement into § 7475(a)(3). Sierra Club confuses the legal concept of “significant contribution,” as used elsewhere in the Act, with the mathematical concept of statistical significance, which is the basic premise underlying the Guidance’s recommended SILs. The Act uses “significant contribution” in some provisions to indicate contribution of greater “magnitude or importance” than contributions from other factors. See *Bluewater Network*, 370 F.3d at 13. Statistical significance, by contrast, is a mathematical tool used to determine whether the proposed source has *any* impact that can be distinguished

from what would have happened in its absence.<sup>4</sup> Thus, the Guidance's SILs do not provide an "exception if the source only causes or contributes a little bit." Pet. Br. 37. They simply provide a tool to determine whether the source causes or contributes to a violation at all.

## **II. EPA Reasonably Interpreted the Statutory Language.**

For the reasons stated above, permitting authorities applying § 7475(a)(3) may exercise their discretion to determine whether emissions from a proposed source have a sufficient impact to "cause, or contribute to" a NAAQS or increment violation. EPA's Guidance and recommended SILs represent a reasonable exercise of that discretion. Sierra Club's challenge, which generally targets the SILs concept rather than the particular values in this Guidance, lacks merit. EPA's approach is consistent with the text, context, and purpose of the Prevention of Significant Deterioration program. And contrary to Sierra Club's assertions, the recommended SILs do not authorize violations of the NAAQS or increments. Indeed, Sierra Club fails to identify even one example in which the construction of

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<sup>4</sup> For this reason, the Guidance's SILs are relevant to both the "cause" and "contribute to" prongs of the § 7475(a)(3) analysis. Even if the proposed source's modeled impact would surpass the difference between existing air quality and the NAAQS, if that impact is below the SIL, it may be appropriate to find the source does not "cause" a violation because the resulting air quality is indistinguishable from what would be expected to occur from normal variability if the source is not built.

a source in reliance on SILs caused or contributed to a NAAQS or increment violation.

**A. The Guidance Is Consistent With the Act.**

Nothing in § 7475(a)(3), the Prevention of Significant Deterioration program, or the Act as a whole is inconsistent with EPA's interpretation in the Guidance that a proposed source should generally not be deemed to "cause, or contribute to" a NAAQS or increment violation if its projected impact on air quality is so small as to be indistinguishable from inherent variability in baseline air quality. As discussed above, *supra* Section I, Congress did not "specif[y] how the owner or operator of a proposed source or modification must demonstrate compliance" with § 7475(a)(3), and the statutory text is not so rigid as to necessarily sweep in all trivial impacts on air quality. *Sierra Club*, 705 F.3d at 465; *EDF*, 82 F.3d at 459; *Catawba Cnty.*, 571 F.3d at 39; *Bluewater Network*, 370 F.3d at 14-15.

Sierra Club argues the statutory context precludes EPA's reading. First, Sierra Club argues SILs impermissibly create an additional "exception" to § 7475(a)(3) beyond the specific "exceptions" provided in the Act. Pet. Br. 37-39. This argument fundamentally misunderstands the nature of SILs. Sierra Club's cited exceptions represent circumstances in which a proposed source *will* cause or contribute to a NAAQS or increment violation but is nonetheless not barred from

obtaining a preconstruction permit. By contrast, SILs are simply screening values used to determine whether a proposed source will cause or contribute to such a violation. In other words, SILs are not an “exception” to the § 7475(a)(3) analysis—they are tools used to conduct that analysis.

Second, Sierra Club argues EPA’s reading of § 7475(a)(3) is unreasonable because it would render meaningless § 7475(e)’s preconstruction monitoring requirements. Pet. Br. 39. According to Sierra Club, SILs allow permitting authorities to “ignore the results of this monitoring and analysis entirely.” *Id.* at 40. Again, this argument misrepresents the role of SILs in the § 7475(a)(3) analysis. The Guidance does not allow permitting authorities to mechanistically apply SILs while ignoring data on actual air quality in the affected area. Even where the permitting authority opts to rely on SILs, it must justify its reliance in each case and base its cause-or-contribute conclusions on the permit-specific record before it. Guidance at 3, JA4. If the permitting authority has reason to believe a proposed source may cause or contribute to a violation notwithstanding the fact that its impacts are below the SILs—for example, based on actual ambient air quality monitoring—it must conduct further analysis to satisfy § 7475(a)(3). *Id.* at 18, JA19. Thus, data gathered pursuant to § 7475(e) still play a meaningful role in the permitting process under the Guidance.



Beyond the Act's context and structure, Sierra Club also claims EPA's interpretation is inconsistent with the Prevention of Significant Deterioration provisions' overall purpose of preventing NAAQS and increment violations. Pet. Br. 26 (citing *Alabama Power*, 636 F.2d at 362); *see id.* 26-30. Sierra Club suggests the use of SILs is incompatible with this purpose because it purportedly allows violations of the NAAQS or increments to occur through, *inter alia*: construction of a source with impacts just below the SILs in an area where existing air quality barely meets the NAAQS; construction of "an unlimited number of sources" with impacts below the SILs that collectively cause a violation; and "construction of new or modified major sources that worsen [existing] violations but are deemed 'not culpable' because their individual contributions are less than a SIL." *Id.* at 27-29.

Sierra Club's arguments are misguided. At the outset, as explained in Section II.B below, Sierra Club fundamentally mischaracterizes SILs and the role that the Guidance recommends for them in the permitting process. SILs do not allow or authorize any violations of the NAAQS or increments.

Moreover, by prioritizing one of the Prevention of Significant Deterioration program's statutory goals over the others, Sierra Club's reading would improperly blur the lines between the separate preconstruction permitting programs Congress developed for areas in attainment and nonattainment of NAAQS. Sierra Club

suggests § 7475(a)(3) should be read to prohibit construction of any source that would increase emissions of a pollutant in an attainment area that has an existing or projected violation, regardless of how small the impact of those emissions may be on ambient air quality or how much responsibility existing sources bear for that violation. But this interpretation would convert the Prevention of Significant Deterioration program into a replica of the Act's preconstruction permit program for sources in nonattainment areas, which requires that a proposed source offset *any* projected emissions increases of the relevant pollutant with corresponding emission reductions from existing sources. *See* 42 U.S.C. § 7503 (establishing nonattainment preconstruction permit requirements).

In contrast to the nonattainment program, the Prevention of Significant Deterioration program only prohibits construction of new or modified sources with impacts that "contribute to" air quality in excess of the NAAQS or increment: it "does not say a source must show it has 'no impact.'" *See* Legal Memorandum at 5-7, JA26-28. This distinction must be given meaning. Although the permitting authority cannot let a NAAQS or increment violation go unaddressed, so long as the proposed source's emissions do not cause or contribute to that violation, the permitting authority may issue the permit and use its other regulatory authorities to remedy the violation by reducing emissions from existing sources. *See* NSR Manual at C.52, JA371.

Sierra Club oversimplifies the Prevention of Significant Deterioration program's statutory goals. Congress did not only intend to prevent violations of the NAAQS and increments: its purpose, as relevant here, was “to *insure that economic growth will occur* in a manner consistent with the preservation of existing clean air resources.” 42 U.S.C. § 7470(3) (emphasis added). EPA's interpretation of § 7475(a)(3) to allow use of SILs is consistent with these dual purposes.

The Guidance recognizes “use of SILs can help satisfy [Prevention of Significant Deterioration] requirements”—thus ensuring new and modified sources will not cause or contribute to violations—“while expediting the permitting process and conserving resources for permit applicants and permitting authorities.” Guidance at 1, JA2. In enacting these permitting requirements, Congress cautioned against letting them create unnecessary “bureaucratic delay.” S. Rep. No. 95-127, at 32, *reprinted in* 3 ENV'T'L POLICY DIV., CONG. RES. SERV., A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977, at 1406 (1979). SILs reduce bureaucratic delay in the permitting process that might otherwise hinder economic growth by unnecessarily burdening development of new facilities.

EPA's approach to § 7475(a)(3) also ensures the “preservation of existing clean air resources.” 42 U.S.C. § 7470(3). Because EPA's Guidance recommends

SILs at a level of air quality impact that is indistinguishable from normal background variability, these values are extremely protective of health and the environment. Use of these SILs allows permitting authorities to focus their resources on identifying and addressing those proposed sources that could plausibly “cause, or contribute to” NAAQS or increment violations.

In rare cases, EPA’s approach may allow construction in an area with an existing or projected violation—but only if the source’s impact is so small that it falls within the range of variability that would be expected even if the source is not built, *and* the permitting authority takes other steps to remediate the violation. In such cases, it is reasonable and consistent with the Act’s stated purposes for the permitting authority to conclude that the new source is not culpable for any deterioration in existing clean air resources and instead address the violation by requiring emission reductions from existing sources. *See Alabama Power*, 636 F.2d at 362 (holding permit program does not “provide[] the exclusive mechanism for protection of the ... increments” and “legislative history reflects an understanding that other measures might be required and are within the authority conveyed”).

Finally, Sierra Club claims EPA acted unreasonably because it based its recommended SILs on “unlawful factors.” Pet. Br. 43. Sierra Club suggests EPA calculated the Guidance’s SILs based solely on “agency preferences and policy

concerns unrelated to the statutory directive to demonstrate compliance with the NAAQS and increments.” *Id.*

Sierra Club ignores the voluminous technical record demonstrating EPA’s recommended SILs are based on a thorough, peer-reviewed statistical analysis and not on expediency. *See* Guidance at 10-14, JA11-15; Technical Basis, JA36-324; *see also id.* at 38 n.36, JA73 (discussing peer review of SILs). Sierra Club takes issue with EPA’s selection of a 50 percent “confidence interval” as the basis for calculating each SIL. But Sierra Club does not acknowledge that prior to selecting this level, EPA first rejected any confidence interval greater than 68 percent on statistical grounds. *See* Guidance at 13, JA14. Because a 68 percent confidence interval is the smallest range accepted for use in identifying a statistically significant change, *any* confidence interval below that value could have satisfied EPA’s goal of identifying impacts on air quality that are indistinguishable from zero, i.e., *not* statistically significant. It was only after eliminating options that were inconsistent with EPA’s approach to § 7475(a)(3) that EPA considered policy concerns, such as the need to provide a “useful compliance demonstration tool” for permitting authorities. *Id.*

Moreover, Sierra Club fails to explain why practicality and expediency are impermissible factors to consider in selecting appropriate SILs. On the contrary, considering these factors helps balance the program’s goals of “insur[ing] that

economic growth will occur in a manner consistent with the preservation of existing clean air resources” while also “assur[ing] that any decision to permit increased air pollution in any [attainment] area ... is made only after careful evaluation of all the consequences.” 42 U.S.C. § 7470(3), (5). To meet these goals, it is imperative for EPA’s recommended SILs to offer “utility as a screening tool” to permitting authorities so they can accurately identify proposed sources that do not require a more in-depth impact analysis and reduce the cost and time burden on permit applicants while conserving agency resources for cases where more careful evaluation is needed.

**B. The Guidance Does Not Authorize Violations of the NAAQS or Increments.**

Sierra Club’s brief repeatedly claims the Guidance’s SILs would “allow” or “authorize” violations of the NAAQS or increments. *See, e.g.*, Pet. Br. 26, 29, 44. But repeatedly invoking this mantra does not make it true. Sierra Club’s argument fails to account for several important aspects of the Guidance’s SILs—indeed, Sierra Club’s claims seem better suited for a challenge to the 2010 rule vacated in *Sierra Club* than for the SILs at issue here.

Sierra Club relies primarily on two acts of rhetorical sleight-of-hand to claim SILs allow violations. First, it assumes the statutory phrase “cause, or contribute to” unambiguously means what Sierra Club believes it to mean—i.e., that *any* modeled impact on air quality, no matter how small, may “cause, or contribute to”

a violation. But this simply begs the question EPA has attempted to answer in the Guidance: what degree of impact on ambient air quality is sufficient to “cause, or contribute to” a violation? Sierra Club argues the Guidance “allows permitting authorities ‘to conclude that the source does not cause or contribute to a violation’ of the NAAQS or any increment if the source’s impact is below the relevant SIL—even if that source may or will cause or contribute to a violation.” Pet. Br. 27 (citation omitted). But this assumes there is some *a priori* correct answer as to whether the source will “cause, or contribute to” a violation independent of the permitting authority’s interpretation.

In reality, permitting authorities may determine what degree of impact is necessary to “cause, or contribute to” a violation. *See supra* Section I. In this Guidance, EPA has recommended SILs reflecting a change in air quality so small it is statistically indistinguishable from having no impact at all, and therefore should not be considered to “cause, or contribute to” any violation. Thus, the premise of Sierra Club’s argument is fundamentally flawed.

Second, Sierra Club’s argument that SILs authorize NAAQS or increment violations completely ignores a permitting authority’s obligation in each permit proceeding to justify its § 7475(a)(3) determination based on the facts in the record before it, even where SILs are used. The Guidance is clear that while recommended SILs should be “sufficient in most situations” to support a

§ 7475(a)(3) analysis, a “determination that a proposed source does not cause or contribute to a violation can only be made by a permitting authority on a permit-specific basis after consideration of the permit record.” Guidance at 3, JA4. A permitting authority cannot simply rely on SILs without explaining why that reliance is rational: in each permit proceeding, “[t]he case-by-case use of SIL values should be justified in the record,” and the permitting authority must account for “any additional information in the record that is relevant to making the required demonstration.” *Id.* at 19, JA20. Where there is reason for concern that the proposed source may still “cause, or contribute to” a violation, the permitting authority cannot ignore those concerns: instead, it “should require additional information from the permit applicant to make the required air quality impact demonstration.” *Id.* at 18, JA19.

In short, the Guidance is markedly different from the 2010 rule vacated in *Sierra Club*, which “[did] not allow permitting authorities the discretion to require a cumulative impact analysis, notwithstanding that the source’s impact is below the SIL, where there is information that shows the proposed source would lead to a violation.” 705 F.3d at 464 (citation omitted). Permitting authorities are not just allowed to consider alternative information that may lead to a different conclusion than mere application of the SILs: they are required to do so.



Many of Sierra Club's concerns are based on the idea that a permitting authority might blindly follow the SILs in permit decisions while allowing runaway construction of sources with small air quality impacts until the NAAQS is exceeded. In reality, not only does the Guidance explicitly discourage this outcome by directing consideration of case-specific evidence in addition to the SILs in each proceeding, but permitting authorities have substantial incentives to prevent this outcome from happening. As a practical matter, a permitting authority has every reason to identify and deny permit applications for sources that, if constructed, would cause a NAAQS violation or exacerbate an existing violation.

The extensive air monitoring network required by the Act should detect any NAAQS violations following a source's construction. These violations could eventually lead the area to be reclassified as nonattainment, placing onerous new restrictions on economic development and imposing new administrative burdens on the permitting authority to revise its state implementation plan and implement new programs under the Act. Even absent redesignation to nonattainment, allowing construction of a source that causes a NAAQS or increment violation could restrict economic growth in the area by making it more difficult for future projects at other sources to satisfy the § 7475(a)(3) inquiry. For these reasons, permitting authorities' discretion to not use the recommended SILs, or to use different SILs, in the appropriate circumstances is not illusory.

Finally, Sierra Club's concern that the use of SILs will allow new or modified sources to bypass the Prevention of Significant Deterioration program by breaking up larger projects into "piecemeal construction or modification projects" is misplaced. Pet. Br. 42. EPA already has adequate regulatory safeguards in place to ensure sources do not circumvent the preconstruction permitting requirements by splitting up otherwise related projects. *See* 83 Fed. Reg. 57,324 (Nov. 15, 2018) (providing notice of final action on "project aggregation" policy).

### **III. The Guidance Is Not Arbitrary or Capricious.**

Sierra Club's arguments for why the SILs are arbitrary and capricious generally reflect the same misconceptions and oversights underlying its other arguments against the Guidance. Sierra Club claims using SILs allows permitting authorities to discount an area's actual ambient air quality data, ignore the cumulative effect of multiple small impacts on air quality in an area over time, and ultimately authorize construction of sources that "cause, or contribute to" NAAQS or increment violations contrary to § 7475(a). All of these arguments are unfounded for the reasons already provided above.

Sierra Club claims EPA's Guidance "does not reflect reasoned decisionmaking based on evidence in the record" because the SILs purportedly can only be used to demonstrate a source's impact is "small," not whether it will "cause, or contribute to" a NAAQS or increment violation. Pet. Br. 44. According

to Sierra Club, “[t]here is a mismatch between EPA’s methodology and what the agency seeks to provide,” as assessing the normal variability in ambient air quality to calculate the SIL only “provides a measure of magnitude, not of whether the impact exists or will cause or contribute to a violation.” *Id.* at 44-45.

Once again, Sierra Club fundamentally misunderstands the nature and derivation of the Guidance’s SILs, as well as the nature of ambient air quality itself. Air quality in an area is not constant: it varies over time and across monitors within an area due to factors such as weather, traffic patterns, spatial distribution of sources, and other influences. *See* Technical Basis at 16-18, JA51-53. The Guidance identified SILs that are statistically indistinguishable from this normal variation. If a proposed source’s modeled impact is smaller than these SILs, there is no basis to conclude it will have any discernable effect on air quality that would not occur in the absence of the source. Therefore, while the Guidance’s SILs are small in magnitude, they provide a measure of whether the proposed source will have any impact on air quality that could be deemed to “cause, or contribute to” a NAAQS or increment violation.

Because Sierra Club misapprehends the nature of the SILs at issue here, the analogies it provides are inapt. The effect of a proposed source on ambient air quality is not similar to moving a football toward a goal line or adding water to a bucket, both of which involve static systems with clearly specified pre- and post-

change characteristics to measure and compare. A better analogy would be determining whether runoff from a new carwash would affect the water level of a nearby river. The river experiences natural variability in its water level over time based on rainfall, snow melt, downstream obstructions, and other factors. To gauge whether runoff from the carwash has caused or contributed to a change in the river's water level on a given day, one would need to know the range of normal variability in the river's water level without the carwash. If the predicted effect of the carwash is less than the normal range of variability in the river's height, there is no way to determine whether the river's water level on a given day is due to some impact from the carwash or simply the result of day-to-day variation that would have happened anyway. So too with the SILs at issue here: if the proposed source's impact is indistinguishable from normal variability in the airshed, then it cannot be confidently said to "cause, or contribute to" the air quality, regardless of what the actual level of air quality is.

Sierra Club's final argument is that EPA "provided no reasoned explanation for not providing heightened protection to" Class I areas. Pet. Br. 49. But Sierra Club ignores that EPA *did* provide additional protection for these areas by recommending smaller SILs for the PM<sub>2.5</sub> increment in Class I areas than for Class II or III areas, reflecting the different size of the increments for these areas. Guidance at 17 Tbl. 2, JA18. It would not be rational to specify smaller SILs for

the NAAQS in Class I areas because, by statutory design, the NAAQS are uniform across all parts of the country. SILs are intended to specify a level of air quality impact below which a source cannot be deemed to “cause, or contribute to” a NAAQS violation. Sierra Club offers no reason to believe that some degree of impact from a source in a Class I area is more likely to cause or contribute to a NAAQS violation than the same impact in a Class II or III area.

### CONCLUSION

For the foregoing reasons, the Court should deny the petition for review.

Respectfully submitted,

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DATED: June 11, 2019

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## CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(f) and 32(g) and D.C. Cir. Rule 32(e), I hereby certify that the foregoing final form Brief of Intervenor-Respondents Air Permitting Forum, American Chemistry Council, American Coke and Coal Chemicals Institute, American Forest & Paper Association, American Fuel & Petrochemical Manufacturers, American Iron and Steel Institute, American Wood Council, Chamber of Commerce of the United States of America, and Utility Air Regulatory Group complies with the type volume limitation because it contains 8,877 words, excluding exempted portions, according to the count of Microsoft Word.

I further certify that the brief complies with Federal Rules of Appellate Procedure 32(a)(5), and 32(a)(6) because it has been prepared in 14-point Times New Roman type.

Respectfully submitted,

/s/ Makram B. Jaber

Makram B. Jaber

Dated: June 11, 2019

**CERTIFICATE OF SERVICE**

I hereby certify that on this 11th day of June, 2019, the foregoing final form Brief of Intervenor-Respondents Air Permitting Forum, American Chemistry Council, American Coke and Coal Chemicals Institute, American Forest & Paper Association, American Fuel & Petrochemical Manufacturers, American Iron and Steel Institute, American Wood Council, Chamber of Commerce of the United States of America, and Utility Air Regulatory Group and accompanying documents were electronically filed with the Clerk of the Court by using the Court's CM/ECF system. All registered counsel will be served by the Court's CM/ECF system.

/s/ Makram B. Jaber



**STANDING ADDENDUM TO  
BRIEF OF INTERVENOR-RESPONDENTS**

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**DECLARATIONS**

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Decl. of Matthew Hodges (April 15, 2019) (Ex. B) ..... Decl. 005  
Decl. of Brian Mitchell (Apr. 12, 2019) (Ex. C) ..... Decl. 007

**EXHIBIT A**

**DECLARATION OF CHERYL STEVES (Apr. 11, 2019)**

## DECLARATION OF CHERYL STEVES

1. Identification. I am employed as a Regional Air Permitting Manager at The Dow Chemical Company (Dow).
2. The Dow Chemical Company is a member of the American Chemistry Council.
3. I have been involved in air permitting of chemical manufacturing units for the past nine (9) years. My primary responsibilities include application development, support during technical review, and negotiation of NSR and PSD permits issued in Texas for several of Dow's production units at the Freeport Texas site. My role also includes coordinating and oversight of the air quality analysis for projects seeking to increase emissions of NAAQS pollutants.
4. I am familiar with the use of the SIL in evaluating emissions increases of criteria air pollutants with regard to the impact on air quality.
5. In particular, I applied the use of SILs in the air quality analysis for PSD pollutants NO<sub>x</sub> and PM<sub>2.5</sub>.

6. Specifically, in applying for a permit for the Light Hydrocarbon 9 unit in Freeport, Dow demonstrated through the use of AERMOD refined modeling that emissions of NO<sub>x</sub> and PM<sub>2.5</sub> from Light Hydrocarbon 9 would not be expected to exceed the level of the NO<sub>x</sub> or PM<sub>2.5</sub> SIL.
7. Based on this demonstration the TCEQ determined that Light Hydrocarbon 9 would not cause or contribute to air quality that exceeded the NO<sub>x</sub> or PM<sub>2.5</sub> NAAQS or PSD increment. The TCEQ therefore issued a permit on March 27, 2014 that allowed construction of Light Hydrocarbon 9.
8. If Dow had not been able to rely on SILs to demonstrate that Light Hydrocarbon 9 would not cause or contribute to air quality that exceeded the NAAQS and PSD increment, Dow may have been required to complete modeling for all industrial sources of NO<sub>x</sub> and PM<sub>2.5</sub> within a certain distance of the facility. This modeling is complex, time consuming, and expensive and would have delayed the project by many months or years.
9. Based on knowledge and experience I, Cheryl Steves, believe that Dow intends to and will rely on SILs in the future to demonstrate that projects

requiring a PSD permit will not cause or contribute to air quality that exceeds an applicable NAAQS or increment.

Respectfully submitted,



Cheryl Steves  
Cheryl Steves  
Regional Air Permitting Manager  
The Dow Chemical Company

Dated: April 11, 2019

**EXHIBIT B**

**DECLARATION OF MATTHEW HODGES (April 15, 2019)**

**DECLARATION**  
**National Ambient Air Quality Standards Significant Impact Levels (SILs)**

1. My name is Matthew H. Hodges and I am the Director of Regulatory Affairs and Regional Environmental of Valero Services, Inc. ("Valero"), a wholly-owned subsidiary of Valero Energy Corporation.
2. Valero relied on the PM, SO<sub>2</sub>, NO<sub>x</sub>, and CO NAAQS Significant Impact Levels (SILs) for a permitting project at our refinery located in Port Arthur, TX during 2017-2018. State Air Quality Permit Number 6825A and PSD Air Quality Permit Number PSDTX49M1
3. Valero supports the use of the SIL analysis as a viable approach to simplifying the PSD permitting process where project impacts on National Ambient Air Quality Standards are expected to be negligible. The ability to employ the SIL analysis reduces the amount of time and use of modeling resources while ensuring that air quality is not degraded. Valero would seek to use the SIL in future permitting efforts, as appropriate.
4. Valero is a member of the American Fuels and Petrochemicals Manufacturer's Association (AFPM).

Sincerely,



\_\_\_\_\_  
Matthew H. Hodges  
Director, Regulatory Affairs  
Valero Services, Inc.



**EXHIBIT C**

**DECLARATION OF BRIAN MITCHELL (April 12, 2019)**

**DECLARATION  
OF  
BRIAN A. MITCHELL**

1. My name is Brian A. Mitchell. I am employed as an Air Quality Engineer, Sr. at Sinclair Oil Corporation (SOC).
2. SOC is a member of the American Fuel and Petrochemical Manufacturers Association (AFPM).
3. I have worked directly for SOC for 2.5 years. Previous to my employment with SOC, I was employed by Sage Environmental Consulting, LLC and provided SOC with New Source Review (NSR) permitting and air dispersion modeling support in the role of a consultant for 10+ years. Previous to my work at Sage, I was an air quality consultant for TRC Environmental Solutions and worked for the State of Wyoming – Department of Environmental Quality – Air Quality Division – NSR Permitting Program (WDEQ-AQD).
4. I am familiar with and have used Significant Impact Levels (SILs) my entire career. This includes reviewing permit applications and their associated air dispersion modeling analyses while working in a regulatory capacity at WDEQ-AQD. As a consultant, and in my current position, I have prepared or assisted in preparing many minor source and Prevention of Significant

Deterioration (PSD) permit applications and associated air dispersion modeling analyses. These analyses, or in some cases, parts of these analyses, relied on SILs to show that a proposed project would not have a significant impact on the region's existing ambient air quality.

5. In particular, I am aware that Sinclair Wyoming Refining Company (SWRC) has relied on SILs in support of permit applications for the following projects for which the reviewing agency (WDEQ-AQD) has issued permits:

- #1 HDS and Reformer Expansion Project (minor NSR permit P0023338 issued 12/15/17)
- #7 Boiler Project (minor NSR permit MD-15648 issued 11/5/14)
- 582 Crude Unit Burner Replacement Project (minor NSR permit MD-14337 issued 7/3/2013)
- Crude Optimization Project (PSD permit MD-12620 issued 10/15/12)

6. Specifically, in applying for a permit for the Crude Optimization Project at the Sinclair Refinery in Sinclair, WY, SWRC demonstrated through use of the EPA's AERMOD Modeling System (EPA preferred and recommended model in 40CFR51, Appendix W) that emissions of multiple pollutants for multiple averaging periods from the Sinclair Refinery would not be expected

to exceed the level of the applicable SIL. These included the Class II demonstrations for the SO<sub>2</sub> annual, PM<sub>10</sub> 24-hr, PM<sub>10</sub> annual and PM<sub>2.5</sub> annual averaging periods. Also included were Class I demonstrations for the NO<sub>2</sub> annual, SO<sub>2</sub> 3-hr, SO<sub>2</sub> 24-hr, SO<sub>2</sub> annual, PM<sub>10</sub> 24-hr, PM<sub>10</sub> annual, PM<sub>2.5</sub> 24-hr and PM<sub>2.5</sub> annual averaging periods.

7. Based on this demonstration the WDEQ-AQD determined that the Crude Optimization Project would not cause or contribute to air quality that exceeded the NAAQS and PSD increments for the pollutants and averaging periods listed in #6 above. The WDEQ-AQD therefore issued a permit that allowed construction of the Crude Optimization Project (Permit # MD-12620).
8. If SWRC had not been able to rely on SILs to demonstrate that the Crude Optimization Project would not cause or contribute to air quality that exceeded the NAAQS or PSD Increments for the pollutants and averaging periods listed in #6 above, SWRC would have, at the very least, had to perform full impact analyses for each, including a regional inventory of surrounding sources that also have an impact on the ambient air quality of the region. This would have added a significant delay in application submittal and application review by WDEQ-AQD, as well as significant

additional cost for preparation of these analyses. This could have also led to changes in project scope, timing and construction plans, without any added benefit to, or additional protection of, the ambient air quality and associated public health of the region.

9. SOC, including SWRC and Sinclair Casper Refining Company (SCRC), regularly modifies facilities for which it needs a minor source or PSD permit and anticipates relying on SILs, including those for PM<sub>2.5</sub> and ozone, in seeking such permits in the future to demonstrate that such modifications will not cause or contribute to ambient air quality impacts that exceed applicable NAAQS or PSD increments.



Brian A Mitchell

4-12-19

Date

**STATUTORY AND REGULATORY ADDENDUM TO  
BRIEF OF INTERVENOR-RESPONDENTS**

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**ADDITIONAL REGULATIONS<sup>1</sup>**

40 C.F.R. pt. 51, app. W, Tbl. 8-2 ..... ADD 001

40 C.F.R. pt. 51, app. W, app. A, A.0(1) ..... ADD 002

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<sup>1</sup> With the exception of the additional regulations listed below, all applicable statutes and regulations are contained in the addenda to Sierra Club’s and EPA’s briefs.

Environmental Protection Agency

Pt. 51, App. W

Table 8-2. - Point Source Model Emission Inputs for NAAQS Compliance in PSD Demonstrations

Averaging time	Emissions limit (lb/MMBtu) <sup>1</sup>	X	Operating level (MMBtu/hr) <sup>2</sup>	X	Operating factor (e.g., hr/yr, hr/day)
<b>Proposed Major New or Modified Source</b>					
Annual & quarterly .....	Maximum allowable emission limit or federally enforceable permit limit.		Design capacity or federally enforceable permit condition.		Continuous operation (i.e., 8760 hours). <sup>2</sup>
Short term (≤ 24 hours) .....	Maximum allowable emission limit or federally enforceable permit limit.		Design capacity or federally enforceable permit condition. <sup>3</sup>		Continuous operation, i.e., all hours of each time period under consideration (for all hours of the meteorological database). <sup>2</sup>
<b>Nearby Source(s)<sup>4,5</sup></b>					
Annual & quarterly .....	Maximum allowable emission limit or federally enforceable permit limit. <sup>5</sup>		Annual level when actually operating, averaged over the most recent 2 years. <sup>6</sup>		Actual operating factor averaged over the most recent 2 years. <sup>6,8</sup>
Short term (≤ 24 hours) .....	Maximum allowable emission limit or federally enforceable permit limit. <sup>5</sup>		Temporally representative level when actually operating, reflective of the most recent 2 years. <sup>6,7</sup>		Continuous operation, i.e., all hours of each time period under consideration (for all hours of the meteorological database). <sup>2</sup>
<b>Other Source(s)<sup>5,9</sup></b>					

The ambient impacts from Non-nearby or Other Sources (e.g., natural sources, minor sources and distant major sources, and unidentified sources) can be represented by air quality monitoring data unless adequate data do not exist.

1. Terminology applicable to fuel burning sources; analogous terminology (e.g., lb/throughput) may be used for other types of sources.
2. If operation does not occur for all hours of the time period of consideration (e.g., 3 or 24-hours) and the source operation is constrained by a federally enforceable permit condition, an appropriate adjustment to the modeled emission rate may be made (e.g., if operation is only 8 a.m. to 4 p.m. each day, only these hours will be modeled with emissions from the source. Modeled emissions should not be averaged across non-operating time periods.
3. Operating levels such as 50 percent and 75 percent of capacity should also be modeled to determine the load causing the highest concentration.
4. Includes existing facility to which modification is proposed if the emissions from the existing facility will not be affected by the modification. Otherwise use the same parameters as for major modification.
5. See Section 8.3.3.
6. Unless it is determined that this period is not representative.
7. Temporally representative operating level could be based on Continuous Emissions Monitoring (CEM) data or other information and should be determined through consultation with the appropriate reviewing authority (Paragraph 3.0(b)).
8. For those permitted sources not in operation or that have not established an appropriate factor, continuous operation (i.e., 8760) should be used.
9. See Section 8.3.2.

8.3 Background Concentrations

8.3.1 Discussion

a. Background concentrations are essential in constructing the design concentration, or total air quality concentration, as part of a cumulative impact analysis for NAAQS and PSD increments (section 9.2.3). Background air quality should not include the ambient impacts of the project source under consideration. Instead, it should include:

i. Nearby sources: These are individual sources located in the vicinity of the source(s) under consideration for emissions limits that are not adequately represented by ambient monitoring data. Typically, sources that cause a significant concentration gradient in the vicinity of the source(s) under consideration for emissions limits are not adequately represented by background ambient monitoring. The ambient contributions from these nearby sources are thereby

accounted for by explicitly modeling their emissions (section 8.2).

ii. Other sources: That portion of the background attributable to natural sources, other unidentified sources in the vicinity of the project, and regional transport contributions from more distant sources (domestic and international). The ambient contributions from these sources are typically accounted for through use of ambient monitoring data or, in some cases, regional-scale photochemical grid modeling results.

b. The monitoring network used for developing background concentrations is expected to conform to the same quality assurance and other requirements as those networks established for PSD purposes.<sup>91</sup> Accordingly, the air quality monitoring data should be of sufficient completeness and follow appropriate data validation procedures. These data should be adequately representative of the area to inform calculation of the design concentration for comparison to the applicable NAAQS (section 9.2.2).



## Environmental Protection Agency

## Pt. 51, App. W

- A.1 AERMOD (AMS/EPA Regulatory Model)
- A.2 CTDMPPLUS (Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations)
- A.3 OCD (Offshore and Coastal Dispersion Model)

### A.0 INTRODUCTION AND AVAILABILITY

(1) This appendix summarizes key features of refined air quality models preferred for specific regulatory applications. For each model, information is provided on availability, approximate cost (where applicable), regulatory use, data input, output format and options, simulation of atmospheric physics, and accuracy. These models may be used without a formal demonstration of applicability provided they satisfy the recommendations for regulatory use; not all options in the models are necessarily recommended for regulatory use.

(2) Many of these models have been subjected to a performance evaluation using comparisons with observed air quality data. Where possible, several of the models contained herein have been subjected to evaluation exercises, including: (1) Statistical performance tests recommended by the American Meteorological Society, and (2) peer scientific reviews. The models in this appendix have been selected on the basis of the results of the model evaluations, experience with previous use, familiarity of the model to various air quality programs, and the costs and resource requirements for use.

(3) Codes and documentation for all models listed in this appendix are available from the EPA's Support Center for Regulatory Air Models (SCRAM) Web site at <https://www.epa.gov/scramp>. Codes and documentation may also be available from the National Technical Information Service (NTIS), <http://www.ntis.gov>, and, when available, are referenced with the appropriate NTIS accession number.

### A.1 AERMOD (AMS/EPA REGULATORY MODEL)

#### References

- U.S. Environmental Protection Agency, 2016. AERMOD Model Formulation. Publication No. EPA-454/B-16-014. Office of Air Quality Planning and Standards, Research Triangle Park, NC.
- Cimorelli, A., *et al.*, 2005. AERMOD: A Dispersion Model for Industrial Source Applications. Part I: General Model Formulation and Boundary Layer Characterization. *Journal of Applied Meteorology*, 44(5): 682-693.
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Schulman, L. L., D.G. Strimaitis and J.S. Scire, 2000. Development and evaluation of the PRIME plume rise and building downwash model. *Journal of the Air and Waste Management Association*, 50: 378-390.

Schulman, L. L., and Joseph S. Scire, 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P-7304B. Environmental Research and Technology, Inc., Concord, MA. (NTIS No. PB 81-164642).

#### Availability

The model codes and associated documentation are available on EPA's SCRAM Web site (paragraph A.0(3)).

#### Abstract

AERMOD is a steady-state plume dispersion model for assessment of pollutant concentrations from a variety of sources. AERMOD simulates transport and dispersion from multiple point, area, or volume sources based on an up-to-date characterization of the atmospheric boundary layer. Sources may be located in rural or urban areas, and receptors may be located in simple or complex terrain. AERMOD accounts for building wake effects (*i.e.*, plume downwash) based on the PRIME building downwash algorithms. The model employs hourly sequential preprocessed meteorological data to estimate concentrations for averaging times from 1-hour to 1-year (also multiple years). AERMOD can be used to estimate the concentrations of nonreactive pollutants from highway traffic. AERMOD also handles unique modeling problems associated with aluminum reduction plants, and other industrial sources where plume rise and downwash effects from stationary buoyant line sources are important. AERMOD is designed to operate in concert with two pre-processor codes: AERMET processes meteorological data for input to AERMOD, and AERMAP processes