

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

No. 18-1167

---

SIERRA CLUB

*Petitioner,*

v.

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

---

PETITION FOR REVIEW OF FINAL ADMINISTRATIVE ACTION OF THE  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

---

**FINAL OPENING BRIEF OF PETITIONER SIERRA CLUB**

**DATED: June 11, 2019**

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*Counsel for Sierra Club*

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

SIERRA CLUB,	)	
	)	
<i>Petitioner,</i>	)	
v.	)	No. 18-1167
	)	
U.S. ENVIRONMENTAL	)	
PROTECTION AGENCY, <i>et al.</i> ,	)	
	)	
<i>Respondents.</i>	)	

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

Pursuant to D.C. Circuit Rule 28(a)(1), Sierra Club submits this certificate as to parties, rulings, and related cases.

**(A) Parties and *Amici***

**(i) Parties, Intervenors, and *Amici* Who Appeared in the District Court**

This case is a petition for review of final agency action, not an appeal from the ruling of a district court.

**(ii) Parties to This Case**

Petitioner:

The petitioner in the above-captioned case is Sierra Club.

Respondents:

The respondents in the above-captioned case are the U.S. Environmental Protection Agency and Andrew Wheeler, in his official capacity as Acting Administrator (collectively, “EPA”).

Intervenors:

Utility Air Regulatory Group, 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, and the Chamber of Commerce of the United States of America have been granted leave to intervene in support of Respondents.

**(iii) Amici in This Case**

The American Petroleum Institute is participating as *Amicus Curiae* in support of Respondents.

**(iv) Circuit Rule 26.1 Disclosures**

See disclosure statement filed herewith.

**(B) Rulings Under Review**

Petitioner seeks review of the final action taken by EPA in the memorandum from Peter Tsirigotis, 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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PROTECTION AGENCY, <i>et al.</i> ,	)	
	)	
<i>Respondents.</i>	)	

**RULE 26.1 DISCLOSURE STATEMENT**

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, Sierra Club makes the following disclosure:

**Sierra Club**

Non-Governmental Corporate Party to this Action: Sierra Club.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party’s Stock: None.

Party’s General Nature and Purpose: Sierra Club, a corporation organized and existing under the laws of the State of California, is a national nonprofit organization dedicated to the protection and enjoyment of the environment.

DATED: June 11, 2019

Respectfully submitted,

/s/Gordon E. Sommers

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## GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Pursuant to D.C. Circuit Rule 28(a)(3), the following is a glossary of uncommon acronyms and abbreviations used in this brief:

$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
Increment	Maximum allowable increases under the Clean Air Act's Prevention of Significant Deterioration program
Legal Memo	EPA, Legal Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act (Apr. 2018)
NAAQS	National Ambient Air Quality Standards (also referred to as "standards")
ppb	Parts per billion
ppm	Parts per million
PSD	Prevention of Significant Deterioration
SIL	Significant impact level
SILs Memo	Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program (Apr. 2018)
Technical Memo	EPA, Technical Basis for the EPA's Development of the Significant Impact Thresholds for PM <sub>2.5</sub> and Ozone (Apr. 2018)

## **PRELIMINARY STATEMENT**

In areas complying with health-protective ambient air quality standards, the Clean Air Act prohibits large sources of air pollution like power plants and refineries from being constructed or modified to emit additional air pollution unless they “demonstrate” they “will not cause, or contribute to,” violations of air quality standards and maximum allowable increases (“increments”) of pollution. This prohibition is the heart of the Act’s Prevention of Significant Deterioration program: the clean air standards and increments define “significant deterioration,” and the preconstruction permitting requirement is the fundamental means of ensuring they will not be violated. Advancing a novel methodology disconnected from the statute, EPA here authorized permitting authorities to allow large sources to proceed with construction without the statutorily-required demonstration, punching a hole in this statutory bulwark against the degradation of clean air.

## **JURISDICTIONAL STATEMENT**

This Court has jurisdiction to review the challenged final action taken by Respondents U.S. Environmental Protection Agency and Acting Administrator Andrew Wheeler (collectively, “EPA”) under the Clean Air Act. 42 U.S.C. § 7607(b)(1). EPA published its “Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program” (the “SILs Memo”) on Apr. 17, 2018, after notice and comment on a

proposed version of the document. Although EPA claims otherwise, the SILs Memo is the “consummation of the agency’s decisionmaking process” and is an action from which “legal consequences will flow,” rendering it final agency action. *Bennett v. Spear*, 520 U.S. 154, 178 (1997) (internal quotation marks omitted).

The SILs Memo authorizes permitting authorities to find proposed new or modified major stationary sources of air pollution have “demonstrate[d]” they “will not cause, or contribute to,” a violation of any National Ambient Air Quality Standard (“NAAQS” or “standard”) or any maximum allowable air pollution increase (“increment”) whenever analysis shows the source’s individual pollution contribution is smaller than a “significant impact level” (“SIL”). SILs Memo 1-3, JA0002-04. Under the SILs Memo, some sources evade the full analysis needed to demonstrate the NAAQS and increments will not be violated. EPA, Legal Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act (“Legal Memo”) 1 (Apr. 2018), JA0022. In fact, sources can receive permits under the SILs Memo even where it is demonstrated they will cause, or contribute to, a violation of the NAAQS or increments – so long as their impact is below a SIL. *Id.*, JA0022.

The SILs Memo resolves the “purely legal” question of whether permitting authorities are authorized to exempt small air quality impacts under 42 U.S.C.

§ 7475(a)(3), and “express[es] [EPA’s] definitive position on [this] general question of statutory interpretation.” *CSI Aviation Servs. v. DOT*, 637 F.3d 408, 412 (D.C. Cir. 2011) (quoting *Ciba-Geigy Corp. v. EPA*, 801 F.2d 430, 438 n.9 (D.C. Cir. 1986)). Further, the SILs Memo has an “immediate and significant” effect on how permitting authorities interpret the Clean Air Act’s Prevention of Significant Deterioration (“PSD”) permitting requirements, and will burden Sierra Club members with additional pollution exposure. *Id.* As this court “has repeatedly held,” an agency’s “interpretation of its governing statute, with the expectation that regulated parties will conform to and rely on this interpretation, is final agency action fit for judicial review.” *Ciba-Geigy*, 801 F.2d at 438; *see* Comment of Ohio Env’tl. Prot. Agency on Draft SILs Memo 2 (explaining how SILs Memo will, “in practice ... be taken as” binding), JA0546; Hitt Decl. ¶ 22 (examples of permit applicants and permitting authorities already relying on proposed or final SILs Memo).

Further, the SILs Memo makes final determinations that specific levels of air pollution are not “significant” and can lawfully be considered not to “cause or contribute to any violation” of the NAAQS or any increment in “any location.” *See, e.g.*, SILs Memo 13, 16 (“EPA can conclude that impacts below 1.2 [micrograms per cubic meter (“ $\mu\text{g}/\text{m}^3$ ”)] are insignificant at any location and will not cause or contribute to a violation of the NAAQS.”), JA0014, 0017. The SILs

Memo authorizes permitting authorities to use the SIL values developed by EPA immediately. *Id.* 17-18, JA0018-19. Permit applicants are authorized to “incorporat[e] the information and technical analysis provided by the EPA” to “show that a source with a projected impact below the relevant SIL value will not cause or contribute to a violation of the NAAQS or ... increment.” Legal Memo 14, JA0035.

Because EPA’s SILs Memo has immediate consequences, like authorizing permitting authorities (including EPA itself) to issue permits for sources that will cause, or contribute to, violations of the NAAQS or increments, Sierra Club timely filed a petition for review on June 18, 2018.

## **STATUTES AND REGULATIONS**

See Addendum.

## **STATEMENT OF ISSUES**

- 1.) Does EPA’s SILs Memo illegally and arbitrarily abrogate the Clean Air Act’s requirement in 42 U.S.C. § 7475(a)(3) that entities proposing to construct or modify major emitting sources of ozone or fine particulate matter must show, before receiving a preconstruction permit, that they will “not cause, or contribute to,” a violation of any National Ambient Air Quality Standard or maximum allowable increase (increment)?

## STATEMENT OF THE CASE

### I. THE NATIONAL AMBIENT AIR QUALITY STANDARDS PROTECT PUBLIC HEALTH FROM FINE PARTICULATE MATTER AND GROUND-LEVEL OZONE POLLUTION

The Clean Air Act, 42 U.S.C. §§ 7401-7671q, requires EPA to adopt and periodically update National Ambient Air Quality Standards for certain harmful air pollutants, including fine particulate matter (“PM<sub>2.5</sub>”) and ground-level ozone. 42 U.S.C. § 7409. These standards limit the concentration of each such pollutant allowable in the ambient air people breathe. For each pollutant, primary and secondary standards must be set at levels “requisite to protect the public health” and “the public welfare,” respectively. *Id.* § 7409(b). After setting a NAAQS, EPA designates areas as “attainment” or “nonattainment” based on whether they meet that standard.<sup>1</sup> *Id.* § 7407(d). To make that determination, when EPA establishes standards, it specifies how compliance with the standard is measured – a statistic called a “design value.”<sup>2</sup> Design values build in statistical methodologies to reduce variability, such as averaging pollution levels. *See, e.g.*, 40 C.F.R. Pt.50 App.N § 1.0(c)(1)-(2) (averaging PM<sub>2.5</sub> levels over three years in determining

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<sup>1</sup> EPA may also designate areas as “unclassifiable,” and such areas are treated identically to attainment areas. 42 U.S.C. §§ 7407(d), 7471. Accordingly, references herein to “attainment areas” also include unclassifiable areas.

<sup>2</sup> Design values are calculations based on the ambient pollution levels that air quality monitors – devices that take samples of the air and measure the quantities of pollutants in the sample – detect.

compliance); 40 C.F.R. § 50.19(b), (d) (same, for ozone levels); 80 Fed. Reg. 65,292, 65,351/1-2 (Oct. 26, 2015) (explaining ozone design value form), JA0861.<sup>3</sup>

Because the pollutants cause serious health and environmental harms, EPA has established NAAQS for fine particulate matter and ground-level ozone pollution. Fine particulate matter pollution consists of small airborne particles less than 2.5 micrometers in diameter, which are emitted by, and also form from other pollutants emitted by, power plants, engines, industrial sources, and other combustion activities. 72 Fed. Reg. 20,586, 20,586/1-3 (Apr. 25, 2007), JA0766; *Am. Trucking Ass'ns v. EPA*, 283 F.3d 355, 359 (D.C. Cir. 2002). PM<sub>2.5</sub> pollution thus includes small soot, smoke, and metal particles, as well as sulfates and nitrates that result from atmospheric reactions of precursor emissions (sulfur dioxide and oxides of nitrogen, respectively). EPA, *The Particle Pollution Rept.* 2, 7 (2003), [https://www.epa.gov/sites/production/files/2017-11/documents/pp\\_report\\_2003.pdf](https://www.epa.gov/sites/production/files/2017-11/documents/pp_report_2003.pdf), JA0554, 0555; 72 Fed. Reg. 20,586/1-3, 20,589/2, JA0766, 0767. To protect public health, EPA has established two PM<sub>2.5</sub>

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<sup>3</sup> Some design values also discard peak measurements of air pollution. The ozone design value is based on the “fourth-highest daily maximum 8-hour average.” 40 C.F.R. § 50.19(b), (d). One of the PM<sub>2.5</sub> standards excludes the highest 2% of measured values from its calculation and so is met when “the 98th percentile 24-hour concentration” is less than or equal to the standard. 40 C.F.R. § 50.18(c); 40 C.F.R. Pt.50 App.N § 1.0(c)(2).

standards: one based on 24-hour averages to protect against high peak exposures and one based on annual averages to protect against harmful long-term exposures. 78 Fed. Reg. 3086, 3124/2-3 (Jan. 15, 2013), JA0823. Every area with a PM<sub>2.5</sub> air quality monitor has a design value for each standard. The latest PM<sub>2.5</sub> NAAQS require that the 24-hour PM<sub>2.5</sub> design value be no greater than 35 µg/m<sup>3</sup> and the annual design value be no greater than 12 µg/m<sup>3</sup>. 40 C.F.R. § 50.18; 78 Fed. Reg. 3086/1, JA0822.

EPA developed these standards because fine particulate matter pollution is “causally linked” to serious health impacts, including asthma attacks, hospitalization and emergency room visits for cardiopulmonary diseases, chronic respiratory disease, reduction in lung function, cancer, and premature death. 75 Fed. Reg. 64,864, 64,880/3-81/1 (Oct. 20, 2010) (“2010 SILs Rule”), JA0792-93; 72 Fed. Reg. 54,112, 54,127/3-28/2 (Sept. 21, 2007), JA0769-70; EPA, Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information (Dec. 2005), EPA-HQ-OAR-2006-0605-0005 at 2-11 tbl.2-2, JA0569. Fine particulate matter can be transported in the atmosphere for hundreds of miles from an emission point to downwind communities. 75 Fed. Reg. 64,880/3, JA0792.

Ozone, the main component of urban smog, is a corrosive air pollutant. *Am. Trucking*, 283 F.3d at 359; 80 Fed. Reg. 65,308/3-09/1, JA0828-29; EPA,

Integrated Science Assessment for 2015 Ozone Standard (“Ozone ISA”) 2-20 to -24 tbl.2-1, EPA-HQ-OAR-2008-0699-0405, JA0607-11. Ozone is not emitted directly into the atmosphere, but results from the reaction of precursor chemicals – primarily volatile organic compounds and oxides of nitrogen – with sunlight in the atmosphere. *Am. Trucking*, 283 F.3d at 359. EPA’s latest ozone NAAQS is based on an 8-hour averaging period. 80 Fed. Reg. 65,294/1, JA0827. Under the latest ozone NAAQS, the design value for ozone must be no greater than 0.070 parts per million (70 parts per billion). 40 C.F.R. § 50.19.

Ozone inflames the lungs; causes asthma attacks, emergency room visits, and hospitalizations; and likely kills people. EPA, Policy Assessment for 2015 Ozone Standard (“Ozone PA”) 3-8 to -9, 3-17 to -22, 3-26 to -32, 3-35 to -44, EPA-HQ-OAR-2008-0699-0404, JA0622-23, 0625-30, 0632-38, 0641-50; Ozone ISA 2-16 to -24 & tbl.2-1, JA0603-11. Ozone-induced health problems can force people to alter daily activities, requiring children to stay indoors and forcing people to take medication and miss work or school. Ozone PA 4-12, JA0655. Because their respiratory tracts are not fully developed, children are especially physiologically vulnerable to ozone pollution, particularly when they have elevated respiratory rates, as when playing outdoors. *Id.* 3-81 to -82, JA0652-53. People with lung disease and the elderly also have heightened vulnerability, but ozone can adversely affect healthy adults, too. 80 Fed. Reg. 65,310/1-3, JA0830. Asthmatics

are more severely harmed by ozone exposure than are healthy individuals, and are vulnerable at lower levels of exposure. *Id.* 65,311/1 n.37, 65,322/3, JA0831, 0832.

Additionally, both fine particulate pollution and ozone harm ecosystems. Fine particulate matter impairs visibility and causes a multitude of ecological harms, including damage to plants and acidification and eutrophication of waterbodies. 72 Fed. Reg. 54,129/1-30/1, 54,131/1-32/3, JA0771-72, 0773-74. Ozone also damages vegetation and forested ecosystems, causing or contributing to widespread stunting of plant growth, tree deaths, visible leaf injury, reduced carbon storage, and reduced crop yields. Ozone PA 5-2 to -3, JA0657-58; Ozone ISA 9-1, JA0612. By harming vegetation, ozone can also damage entire ecosystems. 80 Fed. Reg. 65,370/1-2, 65,377/3, JA0862, 0863.

## **II. TO PREVENT SIGNIFICANT DETERIORATION, THE ACT REQUIRES AMBIENT LEVELS OF POLLUTION IN ATTAINMENT AREAS TO REMAIN BELOW THE NAAQS AND INCREMENTS.**

The NAAQS protect people's health, and, accordingly, achieving and maintaining attainment with the NAAQS is "central" to the Clean Air Act's regulatory scheme. *Union Electric Co. v. EPA*, 427 U.S. 246, 258 (1976). Every state must develop for EPA approval a state implementation plan to ensure that the standards are achieved and maintained. 42 U.S.C. § 7410(a)(1)-(2), (*l*).

In areas designated attainment, the Clean Air Act requires the prevention of significant deterioration of air quality. *Id.* §§ 7470-7479 (the "PSD provisions").

The “theory of the statutory PSD program is that concentration on preconstruction review of major emitting facilities in clean air areas will preserve air quality in those areas with a minimum of economic hardship.” *Alabama Power Co. v. Costle*, 636 F.2d 323, 378 (D.C. Cir. 1979); *see* 42 U.S.C. § 7475 (establishing preconstruction review requirements).

The Clean Air Act defines in two ways the “significant deterioration” that must be prevented. First, new construction or modification of large stationary sources of air pollution (like power plants, refineries, and factories) must not cause or exacerbate a violation of any NAAQS. *Alabama Power*, 636 F.2d at 362; *see* 42 U.S.C. § 7475(a)(3) (establishing requirement). Second, to ensure air quality does not degrade significantly even while the NAAQS remain satisfied, Congress required EPA to set maximum allowable increases in air pollution levels (“increments”), 42 U.S.C. § 7476; *see also id.* § 7473 (establishing by statute certain increments), and required that new construction or modification of such sources of air pollution also not cause or contribute to a violation of any increment. *Alabama Power*, 636 F.2d at 362; 42 U.S.C. § 7475(a)(3); *see also* 75 Fed. Reg. 64,864/1 (establishing PM<sub>2.5</sub> increments), JA0776. The Act thus “set[s] as the threshold of ‘significant deterioration’ for each pollutant in each area the lower of the allowable increment” and the NAAQS. *Alabama Power*, 636 F.2d at 362; *see* 42 U.S.C. § 7475(a)(3) (establishing requirement); *see also* 75 Fed. Reg. 64,875/2

(“an increment defines ‘significant deterioration.’”), 64,885/3 (“the PSD regulations insure that any such deterioration does not lead to air pollution levels that exceed the levels defined by the NAAQS”), JA0787, 0797.<sup>4</sup>

The “principal mechanism” for monitoring compliance with the NAAQS and “the consumption of allowable increments” is the preconstruction review and permitting process in 42 U.S.C. § 7475. *Alabama Power*, 636 F.2d at 362. No new or modified “major emitting facility” may be built in an attainment area unless it receives a preconstruction permit, and any applicant for such a permit must demonstrate that new emissions from the proposed project “will not cause, or contribute to,” an exceedance of any NAAQS or any increment. 42 U.S.C. § 7475(a)(3).<sup>5</sup> Three considerations are integral to demonstrating the NAAQS and increments will not be violated by the source’s new emissions:

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<sup>4</sup> Increments’ stringency varies for different areas, based on a statutory classification scheme. The most stringent increments apply to “Class I” areas – mainly, large national parks and wilderness areas. The next level of increment protection is given to “Class II” areas, presumptively comprising all other attainment areas. *Env’tl. Def. Fund v. EPA*, 898 F.2d 183, 185 (D.C. Cir. 1990). Congress also provided for “Class III” areas, though none has been created. 42 U.S.C. §§ 7472, 7474. EPA has never established an ozone increment; the current increment values for PM<sub>2.5</sub> are shown in Table 2, *infra*.

<sup>5</sup> Major emitting facilities are those with the potential to emit at least 100 tons per year of any air pollutant, in certain source categories, or 250 tons per year in any other source category. *Id.* § 7479(1).

- (1) The ambient air quality at the proposed site and in areas that may be affected by emissions from the source. *See* 42 U.S.C. § 7475(e); 40 C.F.R. § 51.166(k)-(m); *Sierra Club v. EPA*, 705 F.3d 458, 461 (D.C. Cir. 2013);
- (2) The proposed source's projected impacts on ambient air quality. *See* 42 U.S.C. § 7475(a)(3); 40 C.F.R. § 51.166(k), (n); and
- (3) Other increases or reductions of emissions in the affected area, *e.g.*, from other sources in the area. *See* 42 U.S.C. § 7475(a)(3); 40 C.F.R. § 51.166(k).

EPA refers to this complete compliance demonstration as a “cumulative impact analysis.” *Sierra Club*, 705 F.3d at 461. This compliance demonstration “shall be preceded by an analysis ... of the ambient air quality at the proposed site and in areas which may be affected by emissions from such facility,” an analysis that must include actual air quality monitoring data. 42 U.S.C. § 7475(e).

**III. THE SILS MEMO AUTHORIZES PERMITTING AUTHORITIES TO CONCLUDE A SOURCE WILL NOT “CAUSE, OR CONTRIBUTE TO,” ANY VIOLATION EVEN WHEN THE SOURCE WILL CAUSE OR CONTRIBUTE TO A VIOLATION.**

On April 17, 2018, EPA issued the SILs Memo, JA0001. The SILs Memo authorizes permitting authorities to conclude proposed sources “will not cause, or contribute,” to a violation of the NAAQS or any increment for a pollutant if a

preliminary analysis shows the source's individual impact on ambient levels of the pollutant is less than the SIL for that pollutant. *Id.* 17, JA0018. In doing so, permitting authorities may use specific, nationally applicable SILs established in the SILs Memo or “have discretion to develop their own SIL values” using EPA’s methodology as a model. *Id.* 3, JA0004. In states and areas without an approved PSD program in their state implementation plan, EPA plans to use SILs in its administration of PSD permitting. *See id.* 2 (noting EPA intends to obtain information about how SILs are used from its own permitting activities), JA0003. EPA outlines two types of scenarios where these SILs can be used:

First, permitting authorities may use SILs in a preliminary analysis “that considers only the impact of the proposed source on air quality.” *Id.* 17, JA0018. The preliminary analysis does not examine actual air quality, or other factors affecting air quality, to determine whether the source will cause or contribute to a violation of the NAAQS or any increment. *Id.*, JA0018. If the preliminary analysis shows “a proposed source’s maximum impact will be below the corresponding SIL value,” EPA considers that a “sufficient demonstration that the proposed source will not cause or contribute to a violation of the applicable NAAQS or PSD increment.” *Id.*, JA0018. Such sources can skip the cumulative impact analysis, ignoring existing emissions levels and all other projected emissions contributions

to the area. *Id.*, JA0018. This is so even where “a substantial portion of the NAAQS or PSD increment is known to be [already] consumed.” *Id.* 10, JA0011.

Second, if a cumulative impact analysis is done anyway and “predicts a NAAQS violation,” a source whose contribution to the violation is less than the SIL for a given pollutant may be considered “not culpable for” the violation. *Id.* 18, JA0019. EPA calls this a “culpability analysis.” *Id.*, JA0019. EPA states it “will be sufficient in most cases for a permitting authority to conclude that the source does not cause or contribute to (is not culpable for) the predicted violation” if “the [source’s] modeled impact is below the recommended SIL value at the violating receptor during the violation.” *Id.*, JA0019. Similarly, even “[i]f the cumulative impact analysis shows an ... increment exceedance at a location, ... the permitting authority may [still] conclude that the source does not cause or contribute to a violation of the PSD increment” if the source’s impact there is less than the SIL. *Id.*, JA0019.

In both scenarios, sources complying with SILs can or will “cause, or contribute to,” violations of the NAAQS or an increment. The SILs Memo authorizes permitting authorities to give such sources preconstruction (PSD) permits anyway.

EPA’s legal basis for the SILs Memo is an “interpretation of the phrase ‘cause, or contribute to,’ as specifically used in the context of [§ 7475(a)(3)].”

Legal Memo 1-2, JA0022-23. EPA interprets this phrase to exclude “insignificant impact[s],” which the agency defines as “impact[s] on air quality concentrations that [are] small and not meaningful.” SILs Memo 7, JA0008. EPA also describes these impacts as “‘trivial’ or ‘*de minimis*.’” *Id.*, JA0008. However, EPA does not rely on any “inherent authority to establish exemptions for *de minimis* circumstances.” Legal Memo 1-2, JA0022-23; *see also infra* p.18 (in its last attempt to promulgate a SILs rule, EPA relied on *de minimis* exemption). Rather, EPA now interprets the Clean Air Act’s language to give permitting authorities (including EPA) discretion to exempt sources with individually small impacts from the demonstration required by § 7475(a)(3).

The nationally applicable SILs provided by EPA constitute EPA’s “policy decision regarding what represents an insignificant impact.” SILs Memo 12, JA0013. The SILs Memo authorizes permitting authorities to conclusively presume a source with such an impact “will not cause, or contribute to,” a violation of any NAAQS or increment – whether or not this is true. *Id.* 7, 12-13, JA0008, 0013-14. EPA’s legal and technical rationale for the national SILs also serves as “a model for permitting authorities that seek to develop alternative SIL values,” authorizing permitting authorities to make similar policy decisions about what they would like to consider “insignificant.” *Id.* 3, 7-8, JA0004, 0008-09.

To identify what kinds of air quality impacts can be considered “small” or “trivial,” *id.* 7, JA0008, EPA “decided that an ‘insignificant impact’ level of change in ambient air quality can be characterized by the observed variability of ambient air quality levels.” EPA, Technical Basis for the EPA’s Development of the Significant Impact Thresholds for PM<sub>2.5</sub> and Ozone (“Technical Memo”) 6 (Apr. 2018), JA0041; *see* SILs Memo 12-13 (EPA calculated its SILs based on the “the inherent variability” of air quality “across the nation.”), JA0013-14. This variability is due largely to factors like proximity to air pollution sources and meteorology. Technical Memo 16-18, JA0051-53.

To choose a measure of this variability that best served EPA’s policy goal of making PSD permitting “more expedient and practical,” SILs Memo 8, JA0009, EPA “balanced ... the usefulness of the SIL as a compliance demonstration tool in the PSD permitting program.” *Id.* 12, JA0013. EPA also considered that “[v]ery small SIL values would have limited use to permitting authorities.” *Id.* 13, JA0014. Ultimately, EPA chose a measure of variability that yielded SIL numbers the agency found “useful[.]” *Id.* 12, JA0013; *see* Technical Memo 39 (50% confidence interval was chosen for “reasons described in the Policy Document”), JA0074. The NAAQS, increments, and national SIL values EPA derived this way are listed in Tables 1 and 2 below.

**Table 1:** The NAAQS and EPA’s National SIL Values<sup>6</sup>

Criteria Pollutant (averaging period)	Most Recent Primary NAAQS	SIL for Assuming Compliance with NAAQS
PM <sub>2.5</sub> (24-hour)	35 µg/m <sup>3</sup>	1.2 µg/m <sup>3</sup>
PM <sub>2.5</sub> (annual)	12.0 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>
Ozone (8-hour)	70 ppb	1.0 ppb

**Table 2:** The Increments and EPA’s National SIL Values.<sup>7</sup>

Criteria Pollutant (averaging period)	PSD Increments <sup>8</sup>			SIL for Assuming Compliance with Increments		
	Class I	Class II	Class III	Class I	Class II	Class III
PM <sub>2.5</sub> (24-hour)	1 µg/m <sup>3</sup>	4 µg/m <sup>3</sup>	8 µg/m <sup>3</sup>	0.27 µg/m <sup>3</sup>	1.2 µg/m <sup>3</sup>	1.2 µg/m <sup>3</sup>
PM <sub>2.5</sub> (annual)	2 µg/m <sup>3</sup>	9 µg/m <sup>3</sup>	18 µg/m <sup>3</sup>	0.05 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>
Ozone (8-hour)	<i>N/A (there are no increments for ozone)</i>					

The SILs Memo authorizes permitting authorities to use these SILs to approve proposals for new or modified major emitting facilities. SILs Memo 3, 19, JA0004, 0020. The SILs Memo also authorizes permitting authorities to derive alternative SILs based on a similar analytical approach, exercising discretion to decide what is “small” and can therefore be ignored as purportedly not causing or contributing to a violation. *Id.* 3, JA0004.

<sup>6</sup> SILs Memo 15 tbl.1, JA0016.

<sup>7</sup> SILs Memo 17 tbl.2, JA0018.

<sup>8</sup> 40 C.F.R. § 51.166(c)(1); *id.* § 52.21(c); 75 Fed. Reg. 64,865, JA0777.

EPA's rationale for SILs in the SILs Memo departs from any prior approach EPA has taken to the PSD permitting process. EPA has, in the past, attempted to promulgate SILs that would exempt sources from demonstrating compliance with certain NAAQS and increments – but EPA justified these attempts as “*de minimis*” exemptions from the statute's requirements and never suggested the exempted sources did not actually cause or contribute to potential violations. *E.g.*, 75 Fed. Reg. 64,891/2-3, JA0803; 61 Fed. Reg. 38,250, 38,283/1 (July 23, 1996) (proposed rule that was never finalized), JA0876; *see also, e.g.*, EPA, Guidance Concerning the Implementation of the 1-hour SO<sub>2</sub> NAAQS for the Prevention of Significant Deterioration Program (Aug. 23, 2010), Att.1 at 4 n.1 (“The concept of a SIL is grounded on the *de minimis* principles described by the court in *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1980 [*sic*])”), JA0417. EPA admitted sources complying with those SILs could cause or contribute to violations of the NAAQS or increments. EPA, Response to Comments on Proposed 2010 SILs Rule 62 (Aug. 2010), EPA-HQ-OAR-2006-0605-0059, JA0578.

When the 2010 SILs Rule was challenged, EPA conceded it was unlawful, acknowledging “the regulatory text it adopted [did] not allow permitting authorities the discretion to require a cumulative impact analysis,” even where there was “information that shows the proposed source would lead to a violation of the NAAQS or increments.” *Sierra Club*, 705 F.3d at 464 (quoting EPA briefing).

The Court thus vacated and remanded that rule, “because [the SILs] allow permitting authorities to automatically exempt sources with projected impacts below the SILs from having to make the demonstration required under 42 U.S.C. § 7475(a)(3), even in situations where the demonstration may require a more comprehensive air quality analysis.” *Id.* 465. Relying on EPA’s concession and the uncertainty about how EPA’s regulations on remand might address SILs, the Court declined to decide the scope of EPA’s authority to promulgate SILs. *Id.* 464.

EPA has also adopted “significance levels” for certain pollutants in the past, *e.g.*, 40 C.F.R. § 51.165(b)(2), but these values determine when a source’s contribution should be found significant, not insignificant (as under the SILs Memo). *See Sierra Club*, 705 F.3d at 463 (contrasting 40 C.F.R. § 51.165 with EPA’s 2010 SILs Rule); *see also* 72 Fed. Reg. 54,138/3 (noting EPA had “not previously incorporated the concept of a SIL into [its] PSD regulations at 40 CFR 51.166 and 40 CFR 52.21”), JA0775.

The SILs Memo also deviates from EPA’s past determination not to authorize SILs for ozone. *See* 44 Fed. Reg. 3274, 3277/2-3 (Jan. 16, 1979) (specifically declining to authorize significance levels for photochemical oxidants, including ozone), JA0714. In sum, using a novel interpretation of the Clean Air Act, the SILs Memo revives SILs for PM<sub>2.5</sub> and for the first time authorizes them

for ozone, without regard to how close to a violation current air quality is or what else is happening in the area.

### **SUMMARY OF ARGUMENT**

This Court has held that the Clean Air Act's prevention of significant deterioration program defines significant deterioration of air quality as violations of the NAAQS or increments. The chief way, per this Court, that the Act prevents significant deterioration is by requiring anyone wishing to construct a new or modified major stationary source of air pollution (like a factory, power plant, or refinery) to demonstrate to the permitting authority that the source "will not cause, or contribute to," a violation of the NAAQS or any increment. 42 U.S.C. § 7475(a)(3).

The SILs Memo contravenes the Act as definitively interpreted by this Court. It authorizes permitting authorities to skip the required demonstration and allow construction of a proposed source if the source shows its individual air pollution impact is less than a SIL, without looking at whether a NAAQS or increment violation will actually occur or worsen. The SILs Memo thus illegally abrogates the Clean Act's primary way of preventing significant deterioration.

Accordingly, far from preventing significant deterioration, the SILs Memo authorizes it by allowing violations to occur. The Memo allows permitting authorities not to consider current air quality in the area and any other impacts

projected to occur, such as the construction of other sources, before issuing a permit. Ignoring this information, they are free to issue permits to sources that will in fact violate the standards or increments. Indeed, even if a permitting authority does conduct a full analysis and finds the proposed source will cause or contribute to a violation, it can still authorize construction under the SILs Memo if the source's impact on the violation is less than a SIL.

The Clean Air Act unambiguously prohibits this exemption. The language of § 7475(a)(3) is clear that proposed sources must “demonstrate[]” they “will not cause, or contribute to,” any violation of the NAAQS or of any increment – without a significance threshold. Congress used expansive language throughout this provision to ensure no source could escape this demonstration or shift responsibility to others by arguing about the meaning of “cause” or “contribute.” This Court's case law confirms the phrase “cause, or contribute to” should be read broadly, and statutory context and structure confirm it here, too.

Even if the Act were ambiguous, the SILs Memo would still be unreasonable and unlawful. It is disconnected from the statute's approach and the factors the statute makes relevant to preventing exceedances of the NAAQS and increments by new or modified major stationary sources.

Furthermore, the SILs Memo is arbitrary and capricious. Unless permitting authorities know the state of play, including current air quality and other projects'

emissions, they cannot rationally conclude a source will not cause or contribute to a violation. SILs ignore these other important factors, instead considering the source's individual impact in a vacuum. EPA's conclusion that sources complying with SILs will not cause or contribute to violations is unsupported by the record, ignores essential aspects of the problem, and is inconsistent with the agency's prior admissions that compliance with SILs can still allow violations to occur. For all the reasons set forth in this brief, Petitioner Sierra Club asks this Court to vacate the SILs Memo.

### STANDARD OF REVIEW

At issue is whether EPA's action was "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right," or "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9); 5 U.S.C. § 706. This Court rejects agency statutory interpretations that are contrary to the "unambiguously expressed intent of Congress." *Chevron U.S.A. v. NRDC*, 467 U.S. 837, 842-43 (1984). If the statute is ambiguous, the agency's interpretation must be rejected under *Chevron* step two if, among other things, "the agency has [not] offered a reasoned explanation for why it chose that interpretation," *Vill. of Barrington v. Surface Transp. Bd.*, 636 F.3d 650, 660 (D.C. Cir. 2011), or the interpretation "diverges from any realistic meaning of the statute," *Massachusetts v. DOT*, 93 F.3d 890, 893 (D.C. Cir. 1996). Unless

otherwise indicated, references in this brief to “unlawful” agency action refer to action that violates *Chevron* step one and is unreasonable under step two.

Agency action is “arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). If EPA changes course, it “is obligated to supply a reasoned analysis for the change.” *Id.* 42. When EPA’s “new policy rests upon factual findings that contradict those which underlay its prior policy,” the agency must provide “a more detailed justification than what would suffice for a new policy created on a blank slate.” *FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009).

## STANDING

Petitioner Sierra Club is a national nonprofit organization whose purposes include the protection and enjoyment of the environment, including protection of air quality. *See, e.g.*, Hitt Declaration. The Club has standing to bring this action on behalf of itself and its many members who have well-founded concerns about threats to their health and welfare from PM<sub>2.5</sub> and ozone air pollution in places where they live, work, and enjoy recreation. *See* Declarations. These places include

attainment areas, which are subject to the PSD program's preconstruction permitting requirements, as well as nonattainment areas that are affected by air pollution coming from such attainment areas. *See id.*

The SILs Memo challenged here allows increased emissions from new and modified power plants, factories, and other major emitting facilities to cause or exacerbate violations of clean air standards and increments in such places. This harms Sierra Club's members' health and welfare. *See id.*; *NRDC v. EPA*, 643 F.3d 311, 317-19 (D.C. Cir. 2011) (environmental group with members in affected areas has standing to challenge purportedly non-final EPA decision that affected pollution levels). Indeed, many attainment areas with Club members have ozone and PM<sub>2.5</sub> design values that are near, at, or even above the relevant NAAQS notwithstanding their attainment designation. *See* Hitt Declaration.

The SILs Memo also harms the Club and its members' informational and procedural interests by waiving requirements for permit applicants to include information to which the Club and its members are entitled. *See* Declarations; *Shays v. Fed. Election Comm'n*, 528 F.3d 914, 923 (D.C. Cir. 2008) (plaintiff has standing to challenge rule that impairs plaintiff's ability to access information that statute requires to be publicly disclosed). This includes analyses of whether the proposed source's emissions will cause or contribute to NAAQS and increment violations in places where Club members live, work, and engage in recreation.

*E.g.*, 42 U.S.C. §§ 7470(5) (one purpose of PSD provisions is “to assure that any decision to permit increased air pollution ... is made only after ... adequate procedural opportunities for informed public participation in the decisionmaking process), 7475(a)(2), (e)(2), (e)(3)(C) (public hearing). The SILs Memo further impairs Club members’ and the Club’s ability to engage in informed advocacy in PSD permitting proceedings. *See* Hitt Declaration; *Friends of Animals v. Jewell*, 824 F.3d 1033, 1041 (D.C. Cir. 2016) (animal rights organization has standing to challenge rule that denied it information that would “help[] it meaningfully participate in the [statutory] permitting process, as well as engage in related advocacy efforts to protect the three antelope species”).

Sierra Club and its members are also harmed by EPA’s waiver of the procedural requirement for a permitting agency to carry out cumulative impact analyses under § 7475(a)(3), a requirement designed to protect Club members’ concrete health and welfare interests. *See* Declarations; *Nat’l Parks Conserv. Ass’n v. Manson*, 414 F.3d 1, 4-7 (D.C. Cir. 2005) (conservation groups with members in affected area have standing to challenge federal action that alters legal regime governing a state permit decision under Clean Air Act); *Shays v. Fed. Election Comm’n*, 414 F.3d 76, 85, 95 (D.C. Cir. 2005) (“when agencies adopt procedures inconsistent with statutory guarantees, parties who appear regularly before the agency” have standing to object).

For all the foregoing reasons, Sierra Club has standing to bring this action. Further support for Sierra Club's standing appears in the materials cited in this brief and in the appended declarations.

## ARGUMENT

### I. THE SILS MEMO VIOLATES THE CLEAN AIR ACT

#### A. The SILs Memo Unlawfully Authorizes Violations of the NAAQS and Increments

The SILs Memo contravenes the Clean Air Act's PSD provisions, as interpreted by this Court, by authorizing rather than preventing significant deterioration. The "emphatic goal of the PSD provisions is to prevent [increments] from being exceeded," as well as to prevent exceedances of NAAQS. *Alabama Power*, 636 F.2d at 362 ("On their face, these provisions establish the thresholds as limitations that are not to be exceeded ...."); *see also* 42 U.S.C. § 7473(b)(4) (defining "maximum allowable concentration" for pollutant as being no greater than NAAQS for that pollutant); H.R. Rep. No. 95-294, at 9 (1977), *reprinted at* 1977 U.S.C.C.A.N. 1077, 1087 ("The purpose of the permit is to assure that the allowable increments and [NAAQS] will not be exceeded as a result of emissions from any new or modified major stationary source." (emphasis added)), JA0870. In implementing the PSD program, permitting authorities must "prevent violations by requiring demonstration that a proposed source or modification will not cause [or contribute to] a violation." *Sierra Club*, 705 F.3d at 465.

But the SILs Memo 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. SILs Memo 18, JA0019; *see* Legal Memo 1 (permitting authorities may “read [§ 7475(a)(3)] to be satisfied when a permit applicant demonstrates that the increased emissions from the proposed new or modified source will not have a significant or meaningful impact on ambient air quality at any location where a violation of the NAAQS or PSD increment is occurring or may be projected to occur.” (emphasis added)), JA0022. For example, if a preliminary analysis shows a source’s individual impact on ambient 24-hour PM<sub>2.5</sub> levels would be 1.1 µg/m<sup>3</sup>, a permitting authority can “conclude” the source’s impact is “insignificant” and “will not cause or contribute to a violation of the” 24-hour PM<sub>2.5</sub> NAAQS, even in an area where the design value is currently 35 µg/m<sup>3</sup>. SILs Memo 15-16, JA0016-17. Even if the permitting authority did require a cumulative impact analysis and predicted the violation, it would be authorized to “conclude that the source does not cause or contribute to (is not culpable for) the predicted violation” if the analysis said the source’s impact at the time and location of the violation would be below the SIL. *Id.* 18, JA0019. Similarly, in a Class II area where 3.5 µg/m<sup>3</sup> of the 4 µg/m<sup>3</sup> increment is already consumed, another proposed source with a 1.1 µg/m<sup>3</sup> impact would meet the relevant SIL for the

increment and be deemed to comply with § 7475(a)(3)'s requirement, yet would also cause an exceedance of the increment.

Further, because the SILs Memo allows an unlimited number of sources to proceed to construction so long as their individual impact would be below a SIL, exceedances of the NAAQS and increments become still more likely when multiple new sources are proposed in the same area. For example, two sources with ozone impacts of 0.9 ppb each could be built in an area where the current ozone design value is 70 ppb. Because the impact of each would be less than the ozone SIL, both would be deemed to comply with § 7475(a)(3) regardless of whether they would cause or contribute to a violation of the ozone NAAQS there.

Similarly, the SILs Memo allows new or modified major sources to exacerbate existing violations of NAAQS in counties designated as attainment under the PM<sub>2.5</sub> or ozone NAAQS.<sup>9</sup> Under the SILs Memo, permitting authorities can continue allowing the construction of new or modified major sources that worsen these violations but are deemed “not culpable” because their individual contributions are less than a SIL. SILs Memo 18, JA0019.

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<sup>9</sup> Such areas exist in part because EPA virtually never redesignates to nonattainment those counties that are designated attainment but have design values that violate the NAAQS.

The SILs Memo thus violates the Clean Air Act because it authorizes “permitting authorities to automatically exempt sources with projected impacts below the SILs from having to make the demonstration required under 42 U.S.C. § 7475(a)(3), even in situations where the demonstration may require a more comprehensive air quality analysis.” *Sierra Club*, 705 F.3d at 465. It further violates the Act even where analysis shows a violation will occur, for the SILs Memo authorizes the preconstruction permit to issue despite the violation and so allows significant deterioration. *Id.*; see *Alabama Power*, 636 F.2d at 362 (defining significant deterioration based on clear meaning of the Clean Air Act). Whatever EPA’s policy goals, see, e.g., Legal Memo 13 (referring to “streamlin[ing]” the § 7475(a)(3) compliance requirement), JA0034, EPA may not “substitut[e] [its] desires for the plain text” of the Clean Air Act. *New Jersey v. EPA*, 517 F.3d 574, 582 (D.C. Cir. 2008); see also *Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1089 (D.C. Cir. 1996) (same).

Finally, the notion that EPA can authorize any violation of the NAAQS is not only antithetical to the PSD program, but also to the Act’s directive that EPA set the NAAQS at a level that is “requisite to protect the public health,” with “an adequate margin of safety.” 42 U.S.C. § 7409(b)(1). The Supreme Court has construed this mandate as requiring NAAQS to be set at levels “not lower or higher than is necessary – to protect the public health with an adequate margin of

safety.” *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 475-76 (2001). EPA implements that mandate in ways that dampen out high peak levels of pollution, defining carefully what pollution levels are significant enough to harm public health. *See supra* pp.5-6 & n.3. Because by law the NAAQS must already reflect the absolute pollution limit requisite to protect health, EPA cannot specify that pollution levels higher than the NAAQS are permissible.<sup>10</sup>

**B. The SILs Memo Unlawfully Exempts Proposed Sources from the Unambiguous Requirement to “Demonstrate” They “Will Not Cause, or Contribute to,” a Violation.**

Section 7475(a)(3)’s requirement that proposed sources “demonstrate” they “will not cause, or contribute” to a violation of the NAAQS or any increment is unambiguous. Text, context, and structure confirm the requirement bars SILs, for, as explained above, SILs exempt major stationary sources from making that demonstration.

**1**

Congress used mandatory and expansive language throughout § 7475(a) to make its directive clear and leave no gaps for EPA: “no” covered source may be constructed, “unless” that source “demonstrates” that it “will not” “cause, or

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<sup>10</sup> Additionally, the fact that EPA has used similar regulatory tools in the past, SILs Memo 1 nn.1-4, JA0002; Legal Memo 9, JA0030, makes SILs no less unlawful. *See New Jersey*, 517 F.3d at 583 (“previous statutory violations cannot excuse the one now before the court”).

contribute to,” “any” violation of the NAAQS or “any” increment. 42 U.S.C. § 7475(a)(3); see *Consumer Electronics Ass’n v. FCC*, 347 F.3d 291, 298 (D.C. Cir. 2003) (“the Supreme Court has consistently instructed that statutes written in broad, sweeping language should be given broad, sweeping application.”).

Congress specifically used the terms “cause” and “contribute” together to ensure the PSD program would prevent increments and the NAAQS from being exceeded by considering all possible violations or contributions to violations. *Alabama Power*, 636 F.2d at 362; H.R. Rep. No. 95-294, at 9; S. Rep. No. 95-127, at 11, 32 (1977), JA0872, 0873. By including “or contribute to,” Congress unambiguously covered any triggering or worsening of a NAAQS or increment violation. See *North Carolina v. EPA*, 531 F.3d 896, 910 (D.C. Cir. 2008) (where statute uses disjunctive “or” to connect terms, terms have different meaning).

Attempting to inject ambiguity into the statute, EPA argues § 7475(a)(3) is ambiguous because the Act does not define the terms “cause” or “contribute.” Legal Memo 2, JA0023. But EPA undermines itself, for it also recognizes that “absence of a statutory definition does not by itself establish that a term is ambiguous.” *Id.*, JA0023. Indeed, this Court has previously rejected the argument from EPA that “Congress’s failure to provide a statutory definition” created ambiguity, holding “[t]here is no such rule of law.” *NRDC v. EPA*, 489 F.3d 1250, 1258 (D.C. Cir. 2007).

Notably, EPA makes no other allegation of ambiguity in the meaning of “cause” at all in § 7475(a)(3), which it says connotes but-for causation. Legal Memo 2-3, JA0023-24. Nor is there any ambiguity. To cause means “[t]o bring about or effect.” Black’s Law Dictionary (10th ed. 2014) (defining “cause” as a verb). But the SILs Memo illegally authorizes permitting authorities to approve new and modified sources that will “cause” violations. For example, the SILs memo says permitting authorities may “conclude that impacts below [the 24-hour PM<sub>2.5</sub> NAAQS SIL] are insignificant at any location and will not cause or contribute to a violation of the NAAQS.” SILs Memo 16 (emphasis added), JA0017. But in an area that is close to the NAAQS already, a proposed new or modified source could comply with the SIL and still “be responsible for, be the reason for, or result in a violation” (as EPA defines “cause”). Legal Memo 2, JA0023.

Nor is “contribute” ambiguous in the phrase “cause, or contribute to.” In another provision using the same phrase, this Court has held “the term [‘contribute’] has no inherent connotation as to the magnitude or importance of the relevant ‘share’ in the effect; certainly it does not incorporate any ‘significance’ requirement.” *Blewater Network v. EPA*, 370 F.3d 1, 13 (D.C. Cir. 2004) (citations omitted; construing 42 U.S.C. § 7547(a)(3)). In this context, “contribute” means simply “to have a share in any act or effect” or “to have a part or share in

producing.” *Id.* 13 (quoting Webster’s Third New International Dictionary 496 (1993) and 3 Oxford English Dictionary 849 (2d ed. 1989)).

EPA acknowledges “or contribute to” was added to the statute to expand the coverage of § 7475(a)(3) beyond even “but for” causation, and should be interpreted as part of the full phrase. Legal Memo 2-3, JA0023-24. Even if “contribute” standing alone could be presumed to permit a significance threshold, the disjunctive phrase “or contribute to” was intended in § 7475(a)(3) to broaden the coverage of the provision – not reduce its coverage by adding a significance requirement to the phrase. *North Carolina*, 531 F.3d at 910 (EPA must give effect to both provisions in the statute” where they are “written in the disjunctive.”); *see Nat’l Ass’n of Mfrs. v. DOD*, 138 S. Ct. 617, 632 (2018) (courts are “obliged to give effect, if possible, to every word Congress used.”). Congress wanted sources to demonstrate they would not be the “but for” cause of any violation or even contribute to any violation, so that the NAAQS and increments would be maintained.

Although EPA cites *Catawba County v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009), and *EDF v. EPA*, 82 F.3d 451 (D.C. Cir. 1996) to say that “contribute” is ambiguous, Legal Memo 3, JA0024, the issue is not whether that word “is, in some abstract sense, ambiguous, but rather whether, read in context and using the traditional tools of statutory construction,” this Court can infer “whether Congress

has directly spoken to the precise question at issue.” *California Indep. Sys. Operator Corp. v. FERC*, 372 F.3d 395, 400 (D.C. Cir. 2004). Nothing in § 7475 even hints that Congress intended EPA to exempt sources with small air quality impacts from PSD review; everything suggests the opposite. Just as this Court found in both *Catawba County* and *EDF*, the term “contribute” was intended to be broadly encompassing. *See Catawba Cty.*, 571 F.3d at 38 (declining to find that “‘contribute’ necessarily connotes a significant causal relationship.”); *EDF*, 82 F.3d at 460 (“A plan or program that does not reduce emissions, but that facilitates the reduction of emissions by other projects could still ‘contribute to annual emissions reductions....’”).<sup>11</sup>

## 2

Context and structure, as well as statutory purpose, discussed above, *see supra* pp.26-30, confirm the phrase’s unambiguous breadth. Even if the phrase “cause, or contribute to,” were susceptible of multiple meanings, a statute may still “foreclose an agency’s preferred interpretation despite such textual ambiguities if its structure, legislative history, or purpose makes clear what its text leaves opaque.” *Catawba Cty.*, 571 F.3d 20 at 35; *NRDC v. EPA*, 489 F.3d 1364, 1373

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<sup>11</sup> EPA also cites an out-of-Circuit case, *Sur Contra La Contaminacion v. EPA*, 202 F.3d 443 (1st Cir. 2000), that sustained a particular application of a SIL for sulfur dioxide under the PSD program, Legal Memo 10, JA0031, but that case did not consider whether “cause, or contribute” could be interpreted to authorize SILs. *Sur Contra La Contaminacion*, 202 F.3d at 448.

(D.C. Cir. 2007) (“the problem Congress sought to solve should be taken into account to determine whether Congress has foreclosed the agency’s interpretation”); *Roberts v. Sea-Land Servs.*, 566 U.S. 93, 101 (2012) (“It is a fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.”).

**i**

Unlike other places in the Clean Air Act where Congress did say “significantly contribute,” nothing in § 7475 suggests Congress intended § 7475(a)(3) to cover only sources with individually “significant” air quality impacts. *E.g.*, 42 U.S.C. §§ 7506a(a), 7492(c)(1), 7426(a)(1)(B), 7547(a)(1), (4). When “Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.” *Barnhart v. Sigmon Coal Co.*, 534 U.S. 438, 452-53 (2002) (internal quotations omitted). By effectively adding the word “significantly” to § 7475(a)(3), EPA illegally “add[s] words that are not in the statute.” *Pub. Citizen v. Rubber Manufacturers Ass’n*, 533 F.3d 810, 816 (D.C. Cir. 2008).

Moreover, reading “significant” into § 7475, where that language is absent, unlawfully renders its inclusion elsewhere in the Act superfluous. *New York v.*

*EPA*, 443 F.3d 880, 887 (D.C. Cir. 2006) (rejecting interpretation of statute that would render word “insignificant if not superfluous” (internal quotation marks omitted)); *TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001) (“a statute ought, upon the whole, to be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant.”).

EPA admits that Congress used the phrase “cause, or contribute to,” in many parts of the Clean Air Act – sometimes with the modifier “significant” and sometimes without. Legal Memo 9 n.6, JA0030. EPA’s interpretation of “cause, or contribute” here would unlawfully elide a distinction Congress carefully drew throughout the Act. *See, e.g., Bluewater Network*, 370 F.3d at 14 (holding § 7547 expressly distinguishes between these two phrases).

EPA wrongly claims that because the Clean Air Act “does not say a source must show it has ‘no impact’ when a violation of the NAAQS is predicted or pre-existing,” Congress intended to give permitting authorities “discretion.” Legal Memo 4-6, JA0025-27. But EPA ignores that Congress did not here say “cause, or significantly contribute,” though it did elsewhere in the statute. Similarly, Congress did not say in § 7475(a)(3) that permitting authorities should use their “judgment” or “discretion” to determine when sources “cause, or contribute,” unlike other provisions where Congress used such terms. *See, e.g.,* 42 U.S.C. §§ 7408(a)(1)(A), 7410(k)(2), 7411(b)(1)(A), 7511a(c)(2)(A) (using such terms where Congress

intended that result). The language Congress did use is clear: a source may not commence construction unless it “demonstrates” it “will not cause, or contribute to,” a violation. 42 U.S.C. § 7475(a)(3). There is no exception if the source only causes or contributes a little bit. Nor does the Act say sources need only demonstrate a violation is unlikely. This Court has “never held that Congress must repeat itself or use extraneous words before we acknowledge its unambiguous intent.” *Friends of the Earth v. EPA*, 446 F.3d 140, 144 (D.C. Cir. 2006).

## ii

Further, the SILs Memo unlawfully expands on the five narrowly drawn exceptions to § 7475(a)(3)’s compliance demonstration requirement, which Congress established in §§ 7473(c), 7475(a)(3)(A), 7475(b), 7475(d)(2), and 7479(1).

- In § 7473(c), Congress allowed the Governor of any state administering the PSD program to “issue orders or promulgate rules providing that for purposes of determining compliance with the [increments],” certain pollution sources need not be taken into account. 42 U.S.C. § 7473(c). EPA’s SILs waive compliance with any increment for any source, in any circumstance, and go well beyond the circumstances delineated in § 7473(c).
- In § 7475(a)(3)(A), Congress expressly allowed for an exceedance of increments or maximum allowable concentrations in an attainment area no

more than “one time per year.” *Id.* § 7475(a)(3)(A). In contrast, the SILs Memo allows unlimited violations.

- In § 7475(b), Congress waived the requirement to show compliance with increments for a narrow set of sources located in Class II areas that, among other things, will emit no more than 50 tons per year after applying best available pollution controls and proving their particulate matter and sulfur oxides emissions will not cause or contribute to a violation of the secondary NAAQS. *Id.* § 7475(b). The SILs Memo allows these sources to skip showing compliance without making the demonstrations required by § 7475(b).
- In § 7475(d)(2), Congress established its own variance process whereby a state may issue a preconstruction permit to a facility that will cause or contribute to a violation of increments in a Class I area if the relevant Federal Land Manager certifies that emissions “will have no adverse impact on the air quality-related values of such lands,” and certain other requirements are met. *Id.* § 7475(d)(2)(C)(iii)-(iv), (D). The use of SILs allows facilities that will cause or contribute to a violation of increments in a Class I area to be built without meeting these requirements.
- In § 7479(1), Congress exempted “nonprofit health or education institutions” from the definition of a “major emitting facility,” so that sources meeting

this requirement may be built without demonstrating they will not “cause, or contribute” to a violation. *Id.* §§ 7475(a)(3), 7479(1). SILs broaden this exemption to all types of institutions.

Because Congress provided its own exceptions to § 7475(a)(3)’s requirement, “additional exceptions are not to be implied.” *TRW*, 534 U.S. at 28; *accord, e.g., Sierra Club v. EPA*, 294 F.3d 155, 160 (D.C. Cir. 2002) (“We cannot but infer from the presence of these specific exemptions that the absence of any other exemption for the transport of ozone was deliberate, and that the Agency’s attempt to grant such a dispensation is contrary to the intent of the Congress.”).

### iii

EPA’s interpretation is also inconsistent with § 7475(e)’s command for preconstruction permit applicants to gather data on and analyze general ambient air quality in the area affected by the proposed source “for purposes of determining whether emissions from such facility will exceed the [increments] or the [NAAQS].” 42 U.S.C. § 7475(e)(2). *Sierra Club* holds that “Congress was ‘extraordinarily rigid’ in mandating preconstruction air quality monitoring” under § 7475(e)(2) for inclusion in the mandatory analysis. 705 F.3d at 466. Furthermore, any regulations the Administrator promulgates under § 7475(e) “shall require an analysis of the ambient air quality” – not just an analysis of the source’s individual impact. 42 U.S.C. § 7475(e)(3).

But for sources complying with a SIL, permitting authorities may ignore the results of this monitoring and analysis entirely, draining meaning from these requirements. Instead, permitting authorities can conclude the sources “will not cause, or contribute to,” an air quality violation no matter what the current air quality is. Congress’s determination in § 7475(e)(2) that sources must gather and analyze this data “for purposes” of assessing whether emissions from the facility “will exceed” the increments or NAAQS shows its understanding that such information is essential to determining whether sources will cause or contribute to violations. If Congress thought sources could demonstrate compliance without considering the existing air quality, it could have given EPA discretion to only require this data and analysis as needed – it did not do so. *See Alabama Power*, 636 F.2d at 372.

**C. EPA’s Interpretation of the Statute Is Unreasonable and Impermissible.**

For all the above reasons, it is also unreasonable at *Chevron* step two for EPA to interpret § 7475(a)(3) to be satisfied whenever a source’s individual emissions impact is less than a SIL. 467 U.S. at 843-44 (where statute is ambiguous, EPA’s interpretation must still be a “reasonable accommodation of conflicting policies that were committed to the agency’s care by the statute”). EPA’s interpretation of “cause, or contribute to” is further unreasonable because

EPA's rationale is "untethered to Congress's approach." *NRDC v. EPA*, 777 F.3d 456, 469 (D.C. Cir. 2014).

Contrary to EPA's claim, SILs are unnecessary to ensure PSD review "does not prohibit all proposed construction that increases emissions" or otherwise stifle economic growth, Legal Memo 5, JA0026. To "protect public health and welfare from ... air pollution," the Clean Air Act prohibits some construction under the PSD program. 42 U.S.C. § 7470(1). But Congress tempered those restrictions with carefully drawn statutory exceptions "to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources." *Id.* § 7470(3). Only "major emitting facilities" need undertake the required compliance demonstration at all, *id.* § 7475(a), and several statutory exceptions provide for construction even where the NAAQS or an increment would be violated, *id.* §§ 7473(c), 7475(a)(3)(A), 7475(b), 7475(d)(2), 7479(1). Rather than grapple with the flexibility the statute actually provides, EPA baselessly – and thus irrationally – assumes it provides none.

EPA also grounds the SILs Memo on the unlawful policy argument that "[w]here air quality concentrations are high in a specific area because of sources already in operation, [§ 7410] and other provisions of the Act provide tools for addressing this existing pollution through a [state implementation plan]." Legal Memo 8, JA0029. But the D.C. Circuit already rejected this position. *See Sierra*

*Club*, 705 F.3d at 465 (“relying on permitting authorities to address violations, rather than to prevent violations by requiring demonstration that a proposed source or modification will not cause a violation, conflicts with [§ 7475(a)(3)]’s statutory command.”). Even with the best plan for existing sources, permitting authorities must ensure proposed new sources and modification projects will not “cause, or contribute to,” a violation of the NAAQS or any increment in order to prevent air quality from deteriorating into nonattainment.

Moreover, EPA’s interpretation would indirectly allow what the statute prohibits. As this Court has noted, “unlike bologna, which remains bologna no matter how thin you slice it, significant contribution may disappear if emissions activity is sliced too thinly.” *Michigan v. EPA*, 213 F.3d 663, 684 (D.C. Cir. 2000). EPA’s interpretation of the statute would unlawfully allow piecemeal construction or modification projects to bypass the compliance demonstration and cause violations of the NAAQS or an increment. *See Good Fortune Shipping v. Comm’r of IRS*, 897 F.3d 256, 261 (D.C. Cir. 2018) (agency interpretation must be “rationally related to the goals of the statute” and reasonably explained (internal quotation marks omitted)).

EPA’s interpretation of § 7475(a)(3) is also impermissible under *Chevron* step two because EPA considered unlawful factors. *City of Arlington v. FCC*, 569 U.S. 290, 296 (2013) (the question for the court at *Chevron* step two “is

whether the agency's answer is based on a permissible construction of the statute"). EPA admits it chose SIL values based on agency preferences and policy concerns unrelated to the statutory directive to demonstrate compliance with the NAAQS and increments. EPA "weigh[ed]" that "[v]ery small SIL values would have limited use to permitting authorities" and that EPA wanted to pick SILs that would "be a useful compliance demonstration tool for the PSD permitting process." SILs Memo 13, JA0014; Technical Memo 39 (50% confidence interval was chosen "[f]or the reasons described in the Policy Document"), JA0074. Per EPA, the purpose of SILs is to make permitting "more expedient and practical." SILs Memo 8, JA0009. EPA cites no statutory basis for considering these factors.

Further, as discussed in section I.A. and below, compliance with a SIL does not demonstrate compliance with the NAAQS or increments. The purpose of § 7475(a)(3) is to prevent significant deterioration of air quality, and the SILs Memo contravenes this goal by allowing violations of the NAAQS and increments. That is impermissible. *Good Fortune*, 897 F.3d at 261-62.

## **II. THE SILS MEMO IS ARBITRARY AND CAPRICIOUS.**

The SILs Memo is not just unlawful; it is also arbitrary and capricious for at least four reasons. *State Farm*, 463 U.S. at 43; *Fox Television*, 556 U.S. at 515.

First, EPA's determination that SILs are "a streamlined means of making the air quality impact demonstration required by [§ 7475(a)(3)]," Legal Memo 13,

JA0034, does not “reflect reasoned decisionmaking based on evidence in the record.” *Steel Mfrs. Ass’n v. EPA*, 27 F.3d 642, 646 (D.C. Cir. 1994); *see also State Farm*, 463 U.S. at 43 (requiring “rational connection between the facts found and the choice made.”). The SILs Memo and its accompanying legal and technical support documents establish only that SILs can be used to demonstrate a source’s individual impact is “small.” SILs Memo 7, JA0008; Legal Memo 13, JA0034. Nothing in the record demonstrates that sources complying with SILs “will not” cause or contribute to any violation of the NAAQS or any increment. 42 U.S.C. § 7475(a)(3).

There is a mismatch between EPA’s methodology and what the agency seeks to prove. Comparing a source’s impact against the “observed variability of ambient air quality levels,” Technical Memo 6, JA0041, provides a measure of magnitude, not of whether the impact exists or will cause or contribute to a violation. *Id.*, JA0041; *see* Dep’t of the Interior, National Park Service Comments 2 (Apr. 6, 2016) (finding “the premise of the analysis to be incongruent with the uses of SILs in the permitting process”), JA0521. This is like comparing a particular distance to an inch – you may find the distance small, but it can still make the difference between scoring a touchdown or losing the game. Even if small, a source’s impact can “cause, or contribute to,” a violation of the NAAQS or an increment. *See, e.g.*, National Park Service Comments 2 (“If the proposed SILs

are applied to a situation where the background concentration is near or at the level of the NAAQS, but not exceeding the NAAQS, the result for both ozone and PM<sub>2.5</sub> would be an exceedance of the standard,” so it is “untenable to call such an impact ‘insignificant.’”), JA0521.

EPA has also failed to connect its methodological focus on national ambient air quality variability levels with the conclusion EPA draws: that an individual source’s impact in a specific location is not significant. Evaluating the observed variability of national ambient air quality levels might provide a useful way to understand the significance of a study looking at ambient monitoring trends perhaps; if nothing else were known, one could say that small observed changes at a monitor might be attributable to variability alone. But here we are measuring the impact of a particular source that is emitting air pollution, and we know something of its emissions. The source adds new and well-quantified pollution to the area that must be considered. EPA admits “the models used to make the showing required by [§ 7475(a)(3)] under the PSD program are capable of predicting increases in air pollutant concentrations that are small in relation to the level of the NAAQS.”

Legal Memo 8, JA0029. If weather or other factors might naturally raise and lower the pollution levels in an area by an equivalent amount, that does not render the source’s known impact insignificant. Nor does it mean the source’s impact cannot cause or contribute to violations.

Instead of demonstrating that sources using SILs do not impact air quality, the SILs Memo rests primarily on EPA's decision that air quality impacts that are "small," "trivial," or "*de minimis*" relative to this variability can be deemed "not meaningful" as an exercise of discretion. SILs Memo 4, 7, JA0005, 0008. This conclusion is unsupported. Though EPA goes to great lengths to describe the magnitude of these impacts by comparing them to "the observed variability of ambient air quality levels," EPA's scientific analysis ends there. Technical Memo 6, JA0041. EPA does not show these small impacts will not cause or contribute to violations. *Id.*, JA0041.

EPA's legal basis for the SILs Memo actually highlights the lack of factual support for EPA's conclusion. EPA admits it made a "policy decision" to consider small impacts "not significant," SILs Memo 12, JA0013, exercising alleged "discretion ... to exercise its judgment to determine the degree of impact" that is "significant," *id.* 8, JA0009; *see also* Legal Memo 2, 10, 12-13 (describing air quality impacts authorized by SILs as "trivial" or "*de minimis*," not nonexistent or incapable of causing violations), JA0023, 0031, 0033-34. If EPA could actually show the impacts authorized by SILs would not cause or contribute to violations, the agency would not need to allege statutory ambiguity or discretion to deem these small impacts insignificant.

Second, by allowing sources to find they will not “cause, or contribute to,” a violation without evaluating ambient air quality and the potential impact of other sources, EPA “entirely fail[s] to consider an important aspect of the problem.” *State Farm*, 463 U.S. at 43. This Court has recognized that the “success of the [PSD] program depends heavily upon realistic assessments of pollution levels.” *Alabama Power*, 636 F.2d at 378; *see also* 42 U.S.C. § 7475(e) (requiring monitoring and analysis of air quality before a permit can be granted). But by design, the SILs Memo authorizes permitting authorities to ascertain compliance without considering this information.

The impact of a source whose emissions impact is small relative to national air quality variability levels may not be small at all in the context of a particular air quality region, especially where the increment or NAAQS is already mostly consumed or where many sources are being built (such that “small” impacts can lead to violations). *See* National Park Service Comments 2 (warning about ozone SIL, “especially ... in areas where ozone concentrations are close to the NAAQS and where there is substantial minor source growth, such as in energy development areas throughout the country,” since new sources could have ozone impacts below the proposed SIL “but push the area toward nonattainment”), JA0521. Permitting authorities cannot rationally “demonstrate” a source “will not” cause, or contribute to a violation of the NAAQS or increment without considering how close to an

exceedance the air quality is beforehand and what other impacts are projected.

EPA's position is analogous to saying someone pouring water into a bucket can "demonstrate" it will not overflow, without knowing how much water is already in the bucket or who else is adding water.

Third, EPA fails to rationally explain its shift from its past repeated admissions that small air pollution impacts can still cause or contribute to violations of the NAAQS or increments. For example, EPA "cautioned states that the use of a SIL may not be appropriate when a substantial portion of any NAAQS or increment is known to be consumed." 75 Fed. Reg. 64,894/1, JA0806. Likewise, EPA has acknowledged that "the cumulative effect of a number of *de minimis* impacts in an area" could "cause air quality problems," and that SILs would mean the problem is not addressed "simply because no source's impact is 'significant.'" Response to Comments on 2010 SILs Rule at 62, JA0578. EPA also has admitted that even "*de minimis*" air pollution impacts do "consume increments" and can cause or contribute to violations of the NAAQS. 75 Fed. Reg. 64,894/2, JA0806; Response to Comments on 2010 SILs Rule at 62, JA0578; *see also Sierra Club*, 705 F.3d at 463-64 (noting EPA's concession that "*de minimis*" impacts authorized by 2010 SILs Rule could cause or contribute to violations).

EPA fails to acknowledge this past wisdom. Describing small impacts as "not meaningful" and deeming sources "not culpable," SILs Memo 11-12, 18,

JA0012-13, 0019, is inconsistent with the agency's admissions that these impacts actually do affect air quality and can cause or contribute to violations. *See Am. Wild Horse Pres. Campaign v. Perdue*, 873 F.3d 914, 923 (D.C. Cir. 2017) (“A central principle of administrative law is that, when an agency decides to depart from decades-long past practices and official policies, the agency must at a minimum acknowledge the change and offer a reasoned explanation for it.”).

Fourth, it is also arbitrary for EPA to adopt values for the NAAQS SILs in Class I areas that are identical to those in Class II and III areas. SILs Memo 16, JA0017. EPA recognized that “historically, Congress has provided special protections to Class I areas,” but adopted uniform SILs anyway. *Id.*, JA0017. Assuming *arguendo* that EPA had discretion “to exercise its judgment to determine the degree of impact that ‘contributes’” to a violation, Legal Memo 4, JA0025, EPA provided no reasoned explanation for not providing heightened protection to these sensitive Class I areas. EPA “may not ... depart from a prior policy *sub silentio*” or without a “reasoned explanation.” *Fox Television*, 556 U.S. at 515. EPA claims it adopted uniform SILs “because each ozone and PM<sub>2.5</sub> NAAQS is uniform throughout the class areas,” so “no class-specific protection via SILs is necessary.” SILs Memo 16, JA0017. This begs the question. The lack of special protections in other regulations does not justify failing to give that protection to these areas now, where air pollution impacts are more “significant” – if EPA

actually has any discretion to determine what constitutes a “significant” air pollution impact in the first place.

### CONCLUSION

For the reasons given above, Petitioners respectfully request that this Court vacate EPA’s SILs Memo.

DATED: June 11, 2019

Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT**

Counsel hereby certifies, in accordance with Federal Rules of Appellate Procedure 32(a)(7)(B) that the foregoing **Final Opening Brief of Petitioner Sierra Club** contains 11,235 words, as counted by counsel's word processing system, and thus complies with the 13,000 word limit.

Further, this document complies with the typeface and type-style requirements of Federal Rule of Appellate Procedure 32(a)(5) & (a)(6) because this document has been prepared in a proportionally spaced typeface using **Microsoft Word 2016** using size 14 Times New Roman font.

DATED: June 11, 2019

/s/ Gordon E. Sommers  
Gordon E. Sommers

**CERTIFICATE OF SERVICE**

I hereby certify that on this 11th day of June, 2019, I have served the foregoing **Final Opening Brief of Petitioner Sierra Club**, and Addendum thereto, on all registered counsel through the court's electronic filing system (ECF).

/s/ Gordon E. Sommers  
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