Legal Memorandum
Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act

Introduction

Under section 165(a)(3) of the Clean Air Act (Act), an applicant for a preconstruction permit under the Prevention of Significant Deterioration (PSD) program must "demonstrate … that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any" National Ambient Air Quality Standard (NAAQS) or PSD increment. 42 U.S.C. § 7475(a)(3). The law is clear that such a demonstration must be made to obtain a PSD permit. *Sierra Club v. EPA*, 705 F.3d 458, 465 (D.C. Cir. 2013). However, the Act does not specify how a PSD permit applicant or permitting authority is to determine whether a proposed new or modified source will (or will not) cause or contribute to a violation of a NAAQS or applicable PSD increment. *Id.*

The language of section 165(a)(3) of the Act supports two basic approaches that a PSD permit applicant may use to demonstrate that the proposed source's emissions will not cause or contribute to a violation of a NAAQS or PSD increment. One approach is to demonstrate that no such violation is occurring or projected to occur in the area potentially affected by the emissions from the proposed source. A second approach is to demonstrate that the emissions from the proposed source do not cause or contribute to any violation of a NAAQS or PSD increment that has been identified prior to preparation of a permit application or that is identified or projected in the course of preparing and reviewing a permit application.[1] Considering the relevant terms of the Act and other factors discussed below, when applying this second approach, permitting authorities may elect to read section 165(a)(3) of the Act 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. This reading may be

[1] *See* NSR Workshop Manual at C.51-52. The EPA has described both of these approaches as elements of an overall "second approach" that the Agency has recommended applying since 1988. *See* Memorandum from Gerald A. Emison, EPA OAQPS, to Thomas J. Maslany, EPA Air Management Division, EPA Region 3, "Air Quality Analysis for Prevention of Significant Deterioration (PSD)" (July 5, 1988), at 2 ("Emison Memo"). The EPA did not favor the "first approach" described in the 1988 memorandum -- to automatically consider a source to cause or contribute to any modeled violation that would occur within its impact area.

based solely on an interpretation of the phrase "cause, or contribute to," as specifically used in the context of section 165(a)(3) of the Act, without relying on the inherent authority to establish exemptions for *de minimis* circumstances.

Analysis

Two aspects of the Act reflect congressional intent to leave a gap for the EPA to fill in determining the precise meaning of the phrase "cause, or contribute to" in the context of section 165(a)(3) of the Act. First, the phrase "cause, or contribute to" and the included terms "cause" and "contribute" are not specifically defined in the Act itself. Second, section 165(e) of the Act directs the EPA to define the nature of the analysis that is necessary to make the demonstration required under section 165(a)(3) of the Act.

The phrase "cause, or contribute to" and the included terms "cause" and "contribute" are not defined in section 169, section 302, or any other section of the Act. Courts have observed that the absence of a statutory definition does not by itself establish that a term is ambiguous. *NRDC v. EPA*, 489 F.3d 1250, 1258 (D.C. Cir. 2007). In the absence of a definition, the ordinary meaning of a term should govern. *Petit v. Dep't of Education*, 675 F.3d 769, 781 (D.C. Cir. 2012). But courts have also observed that the meaning of a statutory term depends on the context in which it is used. *Bell Atlantic Telephone Co. v. FCC*, 131 F.3d 1044, 1047 (D.C. Cir. 1997).

To discern the ordinary meaning of the term "cause," one can look to dictionary definitions. For example, according to the Merriam-Webster dictionaries, when used as a verb (as in section 165(a)(3) of the Clean Air Act), the word "cause" means "to compel by command, authority, or force." <https://www.merriam-webster.com/dictionary/cause>. The American Heritage Dictionary includes a similar meaning when "cause" is used as a verb, but adds "to be the cause or reason for" and "result in." <https://ahdictionary.com/word/search.html?q=cause>. The term "cause" may also be used as a noun. The Merriam-Webster definition for this usage of "cause" includes "a reason for an action or condition" and "something that brings about an effect or a result." The American Heritage definition of "cause" includes "the producer of an effect, result, or consequence" and "a person, event, or condition, that is responsible for an action or result." Thus, based on these definitions of "cause," emissions from a proposed PSD source that will be responsible for, be the reason for, or result in a violation of the NAAQS may be considered to cause that violation.

Under principles of common law, behavior is generally not considered to be the cause of an injury unless that injury would not have occurred "but for" the behavior. *See* 57A Am. Jur. 2d Negligence § 415. Applying this classic understanding of the concept of causation, a permitting authority may conclude that a PSD permit applicant will "cause" a modeled violation of a NAAQS if the modeled violation would not be projected to occur "but for" the increased emissions from construction or modification of the proposed source.[2] However, it is clear from the "cause, or contribute to" language in section 165(a)(3) of the Act that Congress did not intend for this provision to apply only when emissions from a proposed source are a "but for" cause of a violation of the NAAQS or PSD increment. This is because the term "cause" is followed by the phrase "or contribute to." Given the addition of this phrase, section 165(a)(3) should be read to apply not only where a proposed source would be a "but for" cause of a new modeled violation but also where a proposed source would "contribute" to a violation that might be modeled even without the impact of the proposed source. This could include circumstances where a NAAQS violation is present before considering the proposed increase in emissions from a PSD construction project, or when emissions from multiple sources may impact a particular area.

While the use of "contribute" conveys this meaning in the context of section 165(a)(3) of the Act, one federal appeals court has recognized, based in part on competing dictionary definitions, that the term "contribute" does not itself have a consistent, ordinary meaning. *See Catawba County, N.C. v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009). In two different contexts under the Act, the United States Court of Appeals for the District of Columbia Circuit has observed that the term "contribute" is ambiguous with respect to the degree of air quality effect to which it applies. *Id.* at 38-39; *EDF v. EPA*, 82 F.3d 451, 459, amended by 92 F.3d 1209 (D.C. Cir. 1996). In the absence of an ordinary meaning for the term, the EPA and other PSD permitting authorities may reasonably infer that Congress's silence "is meant to convey nothing more than a refusal to tie the agency's hands" as to the degree of air quality impact necessary to "contribute

[2] In the April 2018 memorandum titled "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program," the EPA explains how a permitting authority may conclude that increased emissions from a proposed PSD source that would result in changes in air quality concentration that are less than a statistical level of variability are not responsible for, the reason for, or the "but for" cause of a NAAQS violation.

to" air pollution in excess of air quality standards under section 165(a)(3) of the Act. *See Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 222 (2009).

In the *Catawba County* case, the court considered the use of "contribute" in section 107(d) of the Act, which governs EPA actions to designate specific areas as in attainment or nonattainment with the NAAQS. Under this provision, a nonattainment area must include any area that does not meet the NAAQS or "that contributes to ambient air quality in a nearby area that does not meet" the NAAQS. The Petitioners argued that the EPA was required to interpret the word "contribute" in this context to require a "significant causal relationship" in order to include a nearby area in a nonattainment area. The Petitioners also argued that the EPA must establish a quantified amount of impact that qualifies as a contribution before the EPA could include a nearby area in a nonattainment area. *Id.* The court held that "section 107(d) is ambiguous as to how the EPA should measure contribution and what degree of contribution is sufficient to deem an area nonattainment." In doing so, the court noted the Petitioners' citation of one dictionary definition and the EPA's citation of other dictionary definitions of the term "contribute" and concluded that "[t]his alone suggests an ambiguity." *Catawba County,* 571 F.3d at 39. Consequently, the Court held that the EPA was not compelled to apply the Petitioners' preferred meaning of the term "contribute" in the context of section 107(d). The court recognized that the EPA had the discretion to interpret the term "contribute" in section 107(d) of the Act to mean "sufficiently contribute" and that the EPA could use a multi-factor test, rather than a quantified threshold, to determine when a nearby area contributed to a NAAQS violation. Likewise, in the *EDF* case, the court reasoned that "contribute to" in section 176(c) of the Act is ambiguous and "leaves wide open the question of how large a reduction in emissions must be to constitute a contribution." 82 F.3d at 459.

Similar to sections 107(d) and 176(c) of the Act, section 165(a)(3) uses the ambiguous term "contribute" without specifying the degree of air quality impact that is necessary to conclude that increased emissions from an individual source will "contribute to" a violation of a NAAQS or PSD increment. In the absence of specific language in section 165(a)(3) regarding the degree of contribution that is required (such as the term "significantly"), the reasoning of the *Catawba County* opinion supports the view that the EPA or another PSD permitting authority has the discretion under this provision to exercise its judgment to determine the degree of impact that "contributes" to adverse air quality conditions based on the particular context in which the term

"contribute" is used. *See* 571 F.3d at 39.[3] Furthermore, this opinion supports a permitting authority's discretion in implementing section 165(a)(3) to identify criteria or factors that may be used to determine whether something "contributes" (including qualitative or quantitative criteria), as long as the agency provides a reasoned basis to justify using such criteria to represent a "contribution."

In the particular context where contribute is used in the PSD permitting program, this part of the Act does not prohibit all proposed construction that increases emissions. Rather, the program contemplates that increased emissions resulting from construction or modification of major stationary sources may be authorized after verifying that the proposed construction will incorporate state-of-the-art pollution controls and that the operation of the new or modified major source will not result in or exacerbate unhealthy levels of air pollution (or significantly increase air pollutant concentrations) in the affected area. The PSD program required by Congress is specifically designed to prevent "significant" deterioration of air quality, not all deterioration of air quality, in areas that do not violate the NAAQS. Further, two goals of the PSD program are to "insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources" and to "assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decision-making process." 42 U.S.C. § 7470(3), (5); *see also NRDC v. EPA*, 937 F.2d 641, 645-46 (D.C. Cir. 1991) (quoting section 160(3) and (5) of the Act and inferring that "Congress believed that its PSD provisions should balance the values of clean air, on the one hand, and economic development and productivity, on the other other"). Thus, the PSD program strikes a balance that allows construction and modification of major stationary sources that will result in increased emissions in areas meeting air quality standards, but only after appropriate safeguards are in place to prevent the source from causing or contributing to significant deterioration of existing clean air resources.

In light of these considerations, the inclusion of the phrase "cause, or contribute to" in section 165(a)(3) of the Act indicates that Congress intended for the reviewing authority to

[3] *See also Environmental Defense v. Duke Energy Corp.*, 549 U.S. 561 (2007) (where the term "modification" and its definition appear, by cross-reference, in two places in the CAA, the EPA may interpret the term differently in the two contexts, so long as it does so in a reasonable manner consistent with the statutory definition).

exercise some judgment in the course of reviewing a permit application. Section 165(a)(3) of the Act does not say a source must show it has "no impact" when a violation of the NAAQS is predicted or pre-existing. Instead, this provision says the source must show it does not "cause, or contribute to" a NAAQS violation. This choice by Congress militates against reading section 165(a)(3) to mean that any degree of a source's projected impact on an area with a predicted or pre-existing violation of a NAAQS or PSD increment must be considered by the permitting authority to cause or contribute to such a violation (without any consideration of whether that degree of impact is meaningful). Under such a reading, a permitting authority could issue a permit only where the applicant has shown either (a) there would be no violation of the NAAQS or PSD increment in the area affected by the source or (b) increased emissions from the source would have no projected impact whatsoever in any area where the NAAQS or PSD increment is already or projected to be violated. This reading of the Act would not allow a permitting authority to exercise any judgment, and thus would fail to give meaning to the terms "cause, or contribute" that Congress used.

This legislative intent for the reviewing authority to exercise judgment in the PSD program is also supported by a comparison of the PSD provisions to the preconstruction permitting requirements applicable in areas that have been designated as nonattainment. Under this program, known as Nonattainment New Source Review (NNSR), sections 173(a)(1) and 173(c) of the Act require increased emissions from a proposed major source or major modification located in a designated nonattainment area to be offset by an equal or greater reduction in actual emissions from other sources. 42 U.S.C. § 7503(a)(1)(A), (c). There is no requirement in this part of the Act (like section 165(e) in the PSD provisions) to examine air quality in the affected area or the level or degree of air quality impact from the proposed emissions increase. The Act does not direct permitting authorities to determine whether emissions offsets are necessary to mitigate the air quality impact of the proposed construction. Rather, when a proposed source will be located in a nonattainment area, the Act in effect conclusively presumes that emissions from the source "cause" or "contribute to" the nonattainment condition because the Act requires the source to offset its emissions increase. In contrast, under the PSD program, when the proposed source will be located in an area that is designated attainment or unclassifiable for the NAAQS for that pollutant, the permitting authority must conduct an analysis of the ambient air quality impact of the source and then

determine whether the increased emissions from that source "cause, or contribute to" a violation that may be projected to occur in the attainment area or occurring in an adjacent nonattainment or unclassifiable area. 42 U.S.C. § 7475(a)(3), (e). Thus, in the NNSR program, the Act's emissions offset provisions afford no discretion to the permitting authority and require every NNSR permit applicant to fully offset its emissions increase – in effect, a conclusive, *per se* presumption that an NNSR source will cause or contribute to a nonattainment problem and therefore must provide mitigation in the form of emissions offsets. By contrast, in the PSD program, the Act provides discretion to the permitting authority to determine, through the use of modeling and other analytical tools as identified by EPA, whether the emissions increase from a proposed PSD source will "cause, or contribute to" a violation, before the source would find it necessary to mitigate its ambient impact (to avoid having its permit denied where its emissions are projected to cause or contribute to a violation). This exercise of discretion by permitting authorities in assessing a proposed source's ambient impact is appropriate in light of the context and purpose of the PSD provisions of the Act, including the contrast to the lack of discretion provided to permitting authorities in the NNSR emissions offset provisions.

In addition, Congress explicitly recognized that air quality models would be needed to make the showing required under section 165(a)(3) to obtain a PSD permit, and directed the EPA to specify such models in regulations. 42 U.S.C. § 7475(e)(3). Section 165(e) of the Act requires an analysis of "ambient air quality at the proposed site and in areas which may be affected by emissions from such facility" and directs the EPA to issue regulations that define the nature of this analysis. 42 U.S.C. § 7475(e). The regulations must "specify with reasonable particularity each air quality model or models to be used under specified sets of conditions" for purposes of the PSD program. 42 U.S.C. § 7475(e)(3)(D). In accordance with this authority, the EPA has promulgated regulations which identify such models and the conditions under which they may be used in the PSD program to make the demonstration required under section 165(a)(3) of the Act. 40 CFR 51.166(l); 40 CFR 52.21(l); 40 CFR Part 51, Appendix W (Guideline on Air Quality Models). Thus, in section 165(e)(3) of the Act, Congress gave the EPA responsibility for determining the methods to be used by PSD permit applicants to show that proposed construction does not cause or contribute to a NAAQS or PSD increment violation. This is evidence of legislative intent for the EPA to exercise its judgment to determine the degree of impact that "contributes to" a violation of the NAAQS and thereby fill a gap in the statutory scheme. While

section 165(e)(3) addresses the promulgation of EPA rules, this provision of the statute may inform a permitting authority's interpretation of section 165(a)(3) of the Act in the context of a decision on an individual permit, because it underscores Congressional intent that the air quality impact analysis required for the issuance of PSD permits be conducted in a manner informed by EPA expertise with air quality modeling. This expertise may also be communicated by EPA in the form of nonbinding guidance to permitting authorities.

Furthermore, given their mathematical nature, the models used to make the showing required by section 165(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. In order to give meaning to the "cause or contribute" language in section 165(a)(3) as calling for an exercise of judgment by the permitting authority, it is reasonable to conclude that Congress understood there would be a point at which a small projected air quality impact from a proposed new or modified source becomes so inconsequential[4] that PSD permitting authorities may reasonably conclude that such an impact does not cause, or contribute to, an existing or projected violation of air quality standards.

Furthermore, the PSD permitting requirements in part C of Title I of the Act are one of many required elements of a State Implementation Plan (SIP) under section 110 of the Act. *See generally* 42 U.S.C. § 7410(a)(2). The PSD permitting requirements are specifically incorporated under sections 110(a)(2)(C) and (J) of the Act. The focus of the PSD program is on controlling increased emissions from the construction and modification of large stationary sources, while some other provisions under section 110(a)(2) require states to target emissions from existing sources. Where air quality concentrations are high in a specific area because of sources already in operation, section 110 and other provisions of the Act provide tools for addressing this existing pollution through a SIP. In this context, where existing sources have already caused air quality to very nearly approach or even violate a NAAQS, it is not necessary to construe the PSD provisions to prohibit any increase in air pollutant emissions from a source located in an attainment area or to require that such a source offset its emissions increase as in the nonattainment NSR program. The goals of the PSD program are achieved by demonstrating that

[4] As discussed herein, this conclusion can be grounded on the statutory language and its context, without invoking an agency's inherent authority to establish a *de minimis* exception from a statutory requirement under the doctrine reflected in *Alabama Power v. Costle*, 636 F.2d 323, 361-63 (D.C. Cir. 1980).

increased emissions from construction or modification of the source will be controlled to the point that these emissions will not have a meaningful impact on air quality in the affected area, while looking to other aspects of a SIP to address emissions from existing sources that bear responsibility for the existing elevated levels of air pollution in the area.

Recognizing this, the EPA has previously supported the use of concentration values,[5] called "ambient air quality significance levels" or "significant impact levels" (SILs) in the PSD program, to represent the point below which the impact of increased emissions from a new or modified major source on ambient air quality does not cause or contribute to a violation of the NAAQS or PSD increment. 61 Fed. Reg. 38250, 38293 (July 23, 1996);[6] NSR Workshop Manual, C.24-C.31 (Oct. 1990). For example, EPA has supported using such values in a preliminary (single-source) analysis that considers only the air quality impact from the construction proposed in a permit application to determine whether a full (or cumulative) impact analysis that also considers background concentrations and the impact of other sources in the

[5] The historic use of a quantified threshold for this purpose in the PSD program differs from the EPA's practice of using a multi-factor test to define "contribution" in the context of designations under section 107(d) of the Act. *See Catawba County, N.C. v. EPA*, 571 F.3d 20, 38-39 (D.C. Cir. 2009). While this case held that a quantified threshold is not required to define contribution in the context of section 107(d), the court's reasoning does not preclude PSD permitting authorities from choosing to use a quantitative level of impact to represent a contribution to a violation of the NAAQS or PSD increment when implementing section 165(a)(3) of the Act. For purposes of implementing section 165(a)(3) of the Act, the EPA has found it more expedient and practical to use a quantitative threshold (expressed as a level of change in air quality concentration) to determine whether increased emissions from proposed construction or modification of a source will contribute to air quality concentrations in excess of applicable standards. Under the reasoning of *Catawba County*, using a quantified threshold for this purpose is permissible as long as the EPA or the appropriate permitting authority provides a reasoned explanation for why impacts below that threshold do not constitute a contribution to a violation in this context.

[6] In this rulemaking notice, the EPA proposed to revise 40 CFR 51.166(k) and 52.21(k) to clarify that the emissions from an individual source seeking a PSD permit must make a "significant contribution" to a violation to support denial of a PSD permit, but this rule was not completed. In the EPA's explanation of its proposed action, the EPA used the term "significantly contribute" to mean essentially the same thing as the term "significant impact." However, the term "contribute" is used in various ways in different parts of the Clean Air Act, sometimes before or after the term "significantly." There is also ambiguity in these statutory provisions regarding the degree of impact that "contributes" to a particular air quality condition specified in each provision. Thus, the EPA and other permitting authorities should exercise more care in the future with regard to their usage of these terms in particular contexts under the Clean Air Act. With these considerations in mind, this memorandum intentionally uses the term "significant impact" and does not use the term "significant contribution." The former is used in this memorandum to describe a degree of impact on air quality concentrations that is meaningful (more than "inconsequential" or "negligible") and thus amounts to a "contribution" for purposes of section 165(a)(3) of the Act. The latter phrase ("significant contribution") is not used in this memorandum because that is not the language used in section 165(a)(3) of the Act. In circumstances where Congress has used the term "significant" or "significantly" to modify the term "contribute" or "contribution" elsewhere in the Clean Air Act, EPA should endeavor to read the Act in a way that gives meaning to this modifying language. Depending on the statutory context, one approach may be to construe the use of "significant" or "significantly" in other provisions of the Act to call for a higher degree of contribution than required under section 165(a)(3) of the Act.

area is necessary before reaching a conclusion as to whether the proposed source would (or would not) cause or contribute to a violation. 40 CFR Part 51, App. W, § 9.2.3; NSR Workshop Manual at C.24-C.25, C.51. In reviewing an individual permit decision by the EPA based on this approach, the United States Court of Appeals for the First Circuit rejected an argument that a source with an impact below a significant impact level for sulfur dioxide should have been required to conduct further analysis. *Sur Contra La Contaminacion v. EPA*, 202 F.3d 443, 446-48 (1st Cir. 2000). The court observed that EPA's decision not to require a cumulative analysis to show that emissions from a source did not cause or contribute to a violation of the NAAQS was "within its discretion, under the regulations." *Id.* at 448. EPA has also supported using these values to demonstrate that a source does not cause or contribute to a violation of the NAAQS in the area that is predicted after a cumulative impact analysis is conducted. NSR Workshop Manual at C.52. At the same time, where such a violation is nevertheless identified in the course of the PSD permitting process, the EPA has emphasized the need to address the source of such air pollution problem through a SIP under section 110 of the Act, rather than preventing construction that will not meaningfully add to the adverse conditions. *See* Memorandum from Gerald A. Emison, EPA OAQPS, to Thomas J. Maslany, EPA Air Management Division, EPA Region 3, "Air Quality Analysis for Prevention of Significant Deterioration (PSD)" (July 5, 1988) ("Emison Memo"); NSR Workshop Manual at C.52.

This practice in the PSD program has been based, in part, on an interpretation by the EPA that the phrase "cause, or contribute to" in section 165(a)(3) does not apply to an "insignificant" impact. In this context, the EPA has used the term "insignificant" to describe a degree of impact that is "trivial" or "*de minimis*" in nature. Conversely, in this context, the EPA has described an impact that is greater than "trivial" or "de minimis" as a "significant impact," which the EPA has represented quantitatively using the values called "significant impact levels." As expressed by the EPA's Environmental Appeals Board (EAB), "EPA has long interpreted the phrase 'cause, or contribute to' to refer to significant, or non-de minimis, emission contributions." *In re Prairie State Generating Co.*, 13 E.A.D. 1, 105 (EAB 2006). Based on a review of the plain terms of the Act in context, the EAB reasoned in this case that "the requirement of an owner or operator to demonstrate that emissions from a proposed facility will not 'cause, or contribute to' air pollution in excess of a NAAQS standard must mean that some non-zero emission of a NAAQS parameter is permissible." *Id.* at 104. The EAB also illustrated how this historic interpretation of

section 165(a)(3) of the Act "is reflected in both applicable EPA regulations and in long-standing EPA guidance." *Id.*

One example of such an EPA regulation was the former section 10.2.3.2(a) of an earlier version of the EPA's Guideline on Air Quality Models (40 CFR Part 51, Appendix W).[7] This provision of Appendix W addressed proposed sources "predicted to have a significant ambient impact" and called for permitting authorities, in evaluating whether the source will cause or contribute to an air quality violation, to consider "the significance of the spatial and temporal contribution to any modeled violation." The EPA recently revised and reorganized the Guideline on Air Quality Models, and an examination of whether a proposed source has a "significant ambient impact" is still reflected in the Guideline. 82 Fed. Reg. 5182 (January 17, 2017) (*see, e.g.*, sections 4.2(c) and 8.1.2(a)).

In a 1988 guidance memorandum, the EPA explained that its position has been that "a PSD source will not be considered to cause or contribute to a predicted NAAQS or PSD increment violation if the source's estimated air quality impact is insignificant (i.e. at or below defined de minimis levels)." Emison Memo at 1. Extending this logic, in 1990, the EPA also said that a permit applicant may demonstrate that it will not cause or contribute to air pollution in violation of any NAAQS or PSD increment by showing that the "proposed source will not result in a significant ambient impact anywhere." NSR Workshop Manual at C.51. More specifically, the EPA has generally considered it sufficient for an applicant to demonstrate that the source's emissions alone have an insignificant impact on air quality in the area outside a facility fence line that is defined as "ambient air." *See In the Matter of Hibbing Taconite Co.*, 2 E.A.D. 838 (Adm'r 1989); NSR Workshop Manual at C.42, C.52.

In this context, the EPA has often equated an insignificant impact with one that is trivial or *de minimis* in nature. In a series of actions between 2006 and 2012, EPA sought to justify the use of SILs as an exemption to the requirement in section 165(a)(3) of the Act based on the agency's inherent authority to exempt *de minimis* circumstances from regulation. *See Alabama Power v. Costle*, 636 F.2d 323, 361-63 (D.C. Cir. 1980). The EPA proposed a regulation based on this rationale in 2007 for only the $PM_{2.5}$ pollutant and finalized that rule in 2010. 75 Fed. Reg.

[7] 40 CFR Part 51, App. W, § 10.2.3.2(a) (2006); 70 Fed. Reg. 68218, 68248-49 (Nov. 9, 2005).

64864 (Oct. 20, 2010).[8] In that rule, the EPA said that "the concept of a SIL is grounded on the *de minimis* principles described by the court in *Alabama Power*." *Id.* at 64891. The EPA repeated this statement in a subsequent administrative order where the EPA also said that the Agency "has interpreted the *de minimis* doctrine to generally support use of SILs … for purposes of determining whether a proposed source or modification contributes to predicted violation of a NAAQS." Order Responding to Petitioner's Request that the Administrator Object to Issuance of a State Operating Permit, *In the Matter of CF&I Steel, L.P. dba EVRAZ Rocky Mountain Steel*, Petition Number VIII-2011-01, at 15 (May 31, 2012) ("*Rocky Mountain Steel* Order"). This order referenced two prior opinions of the EAB that referenced the discussion of the *de minimis* doctrine in the D.C. Circuit's opinion in *Alabama Power*. In the first of these opinions, the EAB observed that "Courts have long recognized that the EPA has discretion under the Clean Air Act to exempt from review some emissions increases on the grounds of de minimis or administrative necessity." *Prairie State*, 13 E.A.D. at 104 (internal quotations omitted).

However, considering the interpretation of the phrase "cause, or contribute to" in section 165(a)(3) described above and the intended role and function of SILs, it is not necessary for permitting authorities to cite inherent *de minimis* exemption authority to justify the conclusion that a proposed source with an insignificant impact on air quality does not cause or contribute to

[8] In response to a challenge to the 2010 rulemaking in the District of Columbia Circuit, the EPA requested that the court remand and vacate two of the EPA's SILs regulations for $PM_{2.5}$ so that the EPA could correct an inconsistency between the inflexible terms of the regulation and EPA's exhortation in the record that permitting authorities should exercise discretion before using these values in some circumstances to justify the conclusion that a source does not cause or contribute to a violation of the NAAQS. *Sierra Club*, 705 F.3d at 463-64. The court noted the EPA's statement in its brief that "the regulatory text it adopted does 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 of the NAAQS or increments." *Id.* at 464. The court then vacated the two $PM_{2.5}$ SIL provisions "because they 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.* at 465. The court said that "[o]n remand, the EPA may promulgate regulations that do not include SILs or do include SILs that do not allow the construction or modification of a source to evade the requirement of the Act as do the SILs in the current rule." Although a rulemaking has not been conducted to date, as discussed below, a permitting authority has discretion to conclude that a proposed source does not cause or contribute to a violation if its predicted impact on air quality concentrations for the relevant pollutant is not significant or meaningful. A permitting authority also has discretion to require other appropriate modeling analyses or information from the permit applicant to make the demonstration required under 42 U.S.C. § 7475(a)(3).

a violation of the NAAQS or PSD increment within the meaning of section 165(a)(3) of the Act.[9] The air quality concentration levels that the EPA has identified as SILs do not function to exempt a source from making the demonstration required by section 165(a)(3) of the Act. Rather, these concentration levels provide a streamlined means of making the air quality impact demonstration required by section 165(a)(3). To determine that its increased emissions will not exceed these concentration values, a new or modified source must conduct air quality modeling to determine the degree of impact the source will have on air pollutant concentrations. If the applicant thereby shows that its increased emissions do not have a significant impact on air pollutant concentrations in the ambient air, the permitting authority may conclude that the applicant has made a demonstration that its increased emissions will not cause or contribute to any air pollutant concentrations that violate the relevant NAAQS or PSD increment. In many circumstances this demonstration can be made by showing through modeling that projected air quality impacts from emissions from the proposed source will fall below the relevant SIL, but permitting authorities have the discretion to require further information or a cumulative impact analysis.

As discussed above, the phrase "cause, or contribute to" in section 165(a)(3) of the Act is reasonably read in context to not apply to impacts on air quality that are not meaningful or significant. In order to show that a particular degree of change in concentration is not meaningful or significant in this context, it is not necessary to make the showing required to establish a *de minimis* exception from a statutory requirement – that the burdens of regulation yield a gain of trivial or no value. Rather, when a concentration value (which may be described as a SIL) is used to quantify the point below which a new or modified source does not cause, or contribute to, a

[9] Although the EPA emphasized its inherent authority to establish a *de minimis* exception to a statutory requirement in several actions on the topic of SILs between 2006 and 2012, EPA also continued to recognize in these actions that phrase "cause or contribute" could be construed to exclude insignificant impacts and that a demonstration that the impacts of a source are insignificant can be used to satisfy (rather than avoid) the statutory requirement in section 165(a)(3) of the Act. In its *Prairie State* opinion, the EAB described how the EPA has interpreted the phrase "cause, or contribute to" in section 165(a)(3) to refer to significant emission contributions. *Id.* at 105. In its 2007 proposal of the $PM_{2.5}$ SILs rule, the EPA said that when "a source can show that its emissions alone will not increase ambient concentrations by more than the SILs, EPA considers this to be a sufficient demonstration that a source will not cause or contribute to a violation of the NAAQS or increment." 72 Fed. Reg. 54112, 54139 (Sept. 21, 2007). The EPA expressed similar thoughts in a guidance memorandum. *See* Memorandum from Acting Director of Air Quality Policy Division to Regional Air Division Directors, General Guidance for Implementing the 1-hour NO_2 National Ambient Air Quality Standards in Prevention of Significant Deterioration Permits, Including an Interim 1-hour NO_2 Significant Impact Level, at 11 (June 28, 2010) ("2010 NO_2 Guidance"). In the 2012 *Rocky Mountain Steel* Order, the EPA observed that a "SIL was a means of demonstrating through modeling that the source's impact at the time and place of the predicted violation will be sufficiently low that such impact will not contribute to that violation."

violation of the NAAQS or PSD increment, it is sufficient for the EPA or a state permitting authority to justify the value as a level below which an impact on air quality may be regarded as not meaningful or significant. In general terms, a trivial or *de minimis* impact on air quality may be considered "meaningless" or "insignificant," but the use of a SIL to identify such a level in the PSD program need not be based on inherent agency authority to establish a *de minimis* exception to section 165(a)(3) of the Act.

Nevertheless, any value used as a SIL must be supported by an appropriate record showing that impacts below that level will not cause, or contribute to, a violation. Given the statutory considerations discussed above, a permitting authority is not required to conclude that any level of ambient impact from a source located in an attainment area automatically "causes or contributes" to a violation. A permitting authority has discretion to conclude that a proposed source does not cause or contribute to a violation if its predicted impact on air quality concentrations for the relevant pollutant is not meaningful or significant. Thus, in the context of a case-by-case decision by a permitting authority to issue a PSD permit and to use a specific SIL value in making the demonstration required in section 165(a)(3) of the Act, such permit must be supported by a record showing that the SIL value used by the permitting authority is representative of a level below which the projected impact of a proposed new or modified stationary source is not meaningful or significant. *See Rocky Mountain Steel* Order at 18; 2010 NO_2 Guidance at 11. Where SIL values developed by EPA are used to show that a source does not cause or contribute to a violation, this permit-specific record can incorporate 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 PSD increment. If a permitting authority elects to apply its own SIL value to support a permitting decision, the permitting record should reflect information independently compiled by a permitting authority to make the same showing with respect to that value.