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Case No. 02-71657

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

MONTANA SULPHUR & CHEMICAL COMPANY,
Petitioner,
v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

ON PETITION FOR REVIEW OF FINAL RULE OF THE UNITES STATES ENVIRONMENTAL PROTECTION AGENCY

RESPONDENT'S BRIEF

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GLOSSARY

APA	Administrative Procedure Act, 5 U.S.C. § 706(2)(A)
CAA	Clean Air Act, 42 U.S.C. §§ 7401-7671q
EPA or Agency	Respondent U.S. Environmental Protection Agency
ER	Excerpts of Record of Petitioner Montana Sulphur & Chemical Company
FIP	Federal Implementation Plan
GEP	good engineering practice
MAAQS	Montana Ambient Air Quality Standard
MDHES	Montana Department of Health and Environmental Sciences
MSCC	Petitioner Montana Sulphur & Chemical Company
NSPS	New Source Performance Standard
NAAQS	National Ambient Air Quality Standards
SER	Respondent U.S. EPA's Supplemental Excerpts of Record
SIP	State Implementation Plan
SO_2	sulfur dioxide
TSD	Technical Support Document
YELP	Yellowstone Energy Limited Partnership

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JURISDICTION

Respondent's disapproval of Montana's "State Implementation Plan" ("SIP") under the Clean Air Act ("CAA" or "Act"), 42 U.S.C. §§ 7401-7671q, constitutes final agency action that is "locally or regionally applicable" and subject to review in this Court under § 7607(b)(1).[1] The Petition for Review of that action was timely filed. Petitioner Montana Sulphur & Chemical Company ("MSCC"), however, has failed to establish standing to challenge the 1993 "SIP Call" issued by Respondent U.S. Environmental Protection Agency ("EPA" or "Agency") pursuant to §§ 7410(a)(2)(H) and 7410(k)(5).

ISSUES PRESENTED

1. Whether this Court has jurisdiction over MSCC's SIP Call challenge.

2. Whether EPA's disapproval of Montana's SIP submittal was arbitrary and capricious or unlawful.

STATUTES AND REGULATIONS

Provided in the Addendum hereto.

STATEMENT OF THE CASE

MSCC challenges EPA's partial and limited disapprovals of the SIP that Montana submitted for the control of sulfur dioxide ("SO_2") air pollution in the

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[1] Statutory references are to Title 42 of the United States Code, unless noted.

Billings/Laurel area. 67 Fed. Reg. 22,168 (May 2, 2002).[2]

A. Statutory/Regulatory Background

The CAA establishes a comprehensive approach to improving the nation's air. The relevant program addresses ambient air quality.

1. NAAQS; State/Federal Implementation Plans.

EPA has developed a list of "criteria" pollutants, defined as those causing or contributing to air pollution that "may reasonably be anticipated to endanger public health or welfare." § 7408(a)(1)(A). For each criteria pollutant, EPA promulgates "national ambient air quality standards" ("NAAQS") sufficient to protect public health with an adequate margin of safety and to protect the public welfare. § 7409(b).[3] EPA has promulgated NAAQS for SO_2. §§ 7408, 7409; 40 C.F.R. pt. 50.

The CAA directs states to develop implementation plans ("SIPs") that "assure" attainment and maintenance of the NAAQS through enforceable emission limitations. §§ 7407(a), 7410(a)(2)(A), 7410(a)(2)(C). A SIP must "provide for the performance of such air quality modeling as the Administrator may prescribe

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[2] MSCC's related, but not consolidated, petition (No. 08-72642), also captioned *Montana Sulphur & Chemical Co. v. EPA*, challenges EPA's *Federal* Implementation Plan, 73 Fed. Reg. 21,418 (April 21, 2008), which EPA promulgated following its SIP disapproval.

[3] EPA sets "primary" standards to protect "public health," § 7409(b)(1), and "secondary" standards to protect "public welfare." *Id.*

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for the purpose of predicting the effect on ambient air quality of any emissions of any [NAAQS-regulated] air pollutant." § 7410(a)(2)(K). Emission limitations in SIPs are developed primarily through modeling.[4]

The CAA assigns EPA a nationwide oversight role, including responsibility to review all SIPs for whether they meet CAA requirements. *See, e.g.*, *Michigan DEQ v. Browner*, 230 F.3d 181, 183 (6th Cir. 2000) (EPA has "final authority" to determine whether SIP meets CAA requirements). Section 7410 authorizes EPA to approve SIPs only when they provide for implementation, maintenance, and enforcement of the NAAQS. EPA "shall not" approve any SIP revision that would "interfere" with CAA attainment requirements. § 7410(*l*). *See Michigan DEQ*, 230 F.3d at 183 (EPA "must disapprove a state's proposed SIP that would interfere with any requirement concerning the state's attainment and maintenance of NAAQS").[5]

EPA monitors the ongoing adequacy of SIPs and calls for remedial action by states for SIPs found deficient. Section 7410(a)(2)(H) directs that states provide for revisions whenever EPA finds, "on the basis of information available"

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[4] *See* 40 C.F.R. § 51.112(a)(1): "The adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in appendix W of this part (Guideline on Air Quality Models)."

[5] EPA reviews SIP revisions, like initial SIP submissions, under § 7410(a)(2). EPA-approved SIPs are federally enforceable. §§ 7413, 7604.

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to it, that a SIP is "substantially inadequate to attain" the NAAQS. Section 7410(k)(5) augments § 7410(a)(2)(H) by providing that whenever EPA finds a SIP "substantially inadequate," EPA must notify the state of the "inadequacies" and direct it (via a "SIP Call") to revise its SIP "as necessary to correct" them.[6] If a state fails to submit a satisfactory SIP, EPA must promulgate a Federal Implementation Plan ("FIP") unless the state corrects the deficiency and EPA approves the revision before promulgating the FIP. § 7410(c).

Also implicated in this action is § 7423, which Congress crafted in response to the proliferation of tall smoke stacks. *See Conn. v. EPA*, 696 F.2d 147, 161 (2d Cir. 1982) (tall stacks disperse emissions, exacerbating interstate pollution).

2. SO_2 Pollution and Impacts.

SO_2 is a "highly reactive colorless" gas derived primarily from fossil fuel combustion. *American Lung Ass'n v. EPA*, 134 F.3d 388, 389 (D.C. Cir. 1998). It is "extremely hazardous," with "pungent odors" similar to "rotten eggs and burnt matches." *Texans United v. Crown Cent. Petroleum Corp.*, 207 F.3d 789, 791 n.6 (5th Cir. 2000).[7]

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[6] For areas designated "nonattainment," § 7502(d) specifies that revisions in response to SIP Calls "must correct the plan deficiency (or deficiencies) specified by" EPA. EPA is not required to designate an area "nonattainment" in order to issue a SIP Call.

[7] The SO_2 primary NAAQS at the time of EPA's SIP actions were 0.14 parts per million ("ppm") for 24-hour average concentrations and 0.03 ppm for annual

(continued...)

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Persons particularly vulnerable to SO_2 pollution include children, asthmatics, older adults, and people spending time outdoors at increased exertion levels. *See Cleveland Elec. Illuminating Co. v. EPA*, 572 F.2d 1150, 1164 (6th Cir. 1978) (because SO_2 pollution particularly harms the "young," "sick," and "old," even if a model did "overpredict" emissions, "such a conservative approach in protection of health and life was apparently contemplated" by Congress in requiring that SIPs contain emission limitations necessary to "*insure*" attainment and maintenance of NAAQS.).[8]

STATEMENT OF FACTS

Modeled Violations and SIP Call. The industrial SO_2 sources – including MSCC – in south-central Montana's Billings/Laurel area are located along the Yellowstone River Valley, which has long been plagued by air pollution. 64 Fed. Reg. at 40,791, 40,805 (July 28, 1999).[9] EPA designated Laurel "nonattainment" in 1978, due to measured and modeled violations of the primary

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[7](...continued)
average concentrations. 40 C.F.R. § 50.4. EPA has since issued a more restrictive SO_2 primary NAAQS based on findings that existing standards were inadequate to protect public health. 75 Fed. Reg. 35,520 (June 22, 2010). The tightened NAAQS, effective August 23, 2010, will apply to future SO_2 SIPs.

[8] SO_2 is also a "leading cause" of acid rain. *Clean Air Markets Group v. Pataki,* 338 F.3d 82, 84 (2d Cir. 2003).

[9] Montana deemed this "a fair statement." ER 102.

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SO_2 standards. 43 Fed. Reg. 8962 (Mar. 3, 1978).[10] Although the Billings area (where MSCC is located) was not designated nonattainment, modeling in the 1970s "indicated that potential violations of the SO_2 standards were also occurring" there due to emissions from MSCC and others. SER 46.

In the 1980s, monitoring in the area showed exceedances of the 24-hour SO_2 standard but only one documented "violation." (A second exceedance would constitute a violation.) *Id.* SO_2 emissions in the Billings/Laurel area remained relatively constant throughout that decade, decreasing in 1983-86 (from approximately 35,000 to 31,500 tons/year), before rising in 1989 (to nearly 34,000 tons). SER 131.

In 1990, the City of Billings hired a contractor (GRI) to perform dispersion modeling for the Billings area. As summarized by the Montana Department of Health and Environmental Sciences ("MDHES"), GRI's study "indicated potential violations of the federal SO_2 standards at both actual and allowable emissions levels," and predicted "high concentrations in areas where ambient monitoring had not been conducted." SER 48. In 1991, a local company – now Yellowstone Energy Limited Partnership ("YELP") – performed dispersion modeling for a permit application. It, too, "revealed violations of the federal SO_2 standards in the

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[10] Although this "nonattainment area" designation was limited to Laurel, Billings facilities impact Laurel's air quality and vice-versa. *See* Supplemental Excerpts of Record ("SER") 37. Hence, many record documents refer to the "Billings/Laurel" area, and this brief utilizes that convention.

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Billings area." *Id.*

In 1992, EPA, citing these studies, advised MDHES under what circumstances EPA would make a SIP inadequacy finding. SER 141-43. In 1993, MDHES wrote the City of Billings, acknowledging that the existing SIP "did not regulate SO_2 emissions from industrial process units" (including sulfur recovery plants and flares) and that SO_2 emissions "are allowed to be emitted at levels significantly higher than actual emissions in recent years." SER 144-45. MDHES explained that these deficiencies "prevented" Montana from demonstrating the SIP's adequacy, and added that "recent dispersion modeling studies conducted in the area show numerous predicted violations of the NAAQS." *Id.* at 145. After describing modeling as "the accepted and required tool for developing SIPs," MDHES stated:

> It is the combination of the lenient emission control plan and the modeling results that is leading EPA to declare the SIP inadequate. EPA is well aware that actual SO_2 monitoring data from sites in the area has not shown a violation of SO_2 NAAQS; however, current monitoring sites are not at the highest predicted locations, nor could we locate enough monitors to provide the spatial coverage represented in the model.

Id. MDHES advised that the status quo "preserves the grandfathered status of the existing industry and presents a complex and frightening picture to new industry seeking a permit in the immediate Billings or Laurel areas." *Id.* at 146. It concluded: "With a revised SO_2 SIP which specifies emission limits on all area industries and which demonstrates compliance with the ambient standards based

on dispersion modeling, permitting of new industries will be eased significantly." *Id.* at 147.

In a 1993 SIP Call letter to Montana's Governor, EPA advised that, based on this situation, the Billings/Laurel SO_2 SIP was substantially inadequate. SER 137. EPA requested that Montana submit SIP revisions within 18 months and stated that the SIP Call was a "preliminary step in an ongoing process" and "not subject to judicial review." *Id.* at 140.[11]

MDHES prepared a "protocol to direct the dispersion modeling analyses" for the SIP revisions. SER 41. MDHES incorporated two EPA-approved models into an "Integrated Gaussian Model," which MDHES found performed "very well" and was "an appropriate tool to develop the SIP revision." *Id.* MDHES concluded: (1) modeling "confirmed the deficiency with the 1979 SO_2 SIP in limiting mass emissions"; (2) since mass emissions were not "effectively limited" in the SIP, the NAAQS were not "adequately protected"; and (3) the SIP failed to specify "compliance procedures, testing methods, monitoring and reporting requirements which ensure maintenance of the federal ambient standards." *SER* 64 .[12]

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[11] EPA published notice of the SIP Call at 58 Fed. Reg. 41,430 (Aug. 4, 1993).

[12] MDHES confirmed that since "violations of the NAAQS were predicted using the 1989 actual emissions, it was clear that reductions in actual and allowable emissions" were "necessary." SER 40.

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EPA and Montana then strove to reach agreement on SIP revisions. Montana submitted initial SIP revisions in 1995, which it modified and resubmitted in 1996, 1997, 1998 and 2000. 67 Fed. Reg at 22,171, 22,175. The submissions reflected federal-state agreement on most issues.[13]

EPA's SIP Actions/ the Litigation. On July 28, 1999, EPA proposed action on Montana's Billings/Laurel SO_2 SIP revisions. 64 Fed. Reg. at 40,791. EPA took final actions on May 2, 2002 (67 Fed. Reg. 22,168) and May 22, 2003 (68 Fed. Reg. 27,908), partially approving, partially disapproving, limitedly approving, and limitedly disapproving the revisions.[14] As relevant here, EPA disapproved the: (1) attainment demonstration due to issues with emission limits, inappropriate stack height credit, and lack of submitted emission limits on flares; (2) emission limits for MSCC's Sulfur Recovery Unit 100-meter stack and the stack height credit supporting those limits; and (3) emission limits for MSCC's 30-meter and auxiliary vent stacks.[15]

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[13] Even if this Court were to remand any aspect of this matter as it relates to MSCC, all other elements of EPA's SIP action should remain undisturbed.

[14] Under a limited approval/disapproval action, the rule remains part of the federally enforceable SIP, even though limitedly disapproved, because it strengthens the SIP. The disapproval only concerns the rule's failure to meet specific CAA requirements. 67 Fed. Reg. at 22,171.

[15] MSCC receives via pipeline from ExxonMobil a continuous stream of high-sulfur gas from which MSCC recovers 95-98 percent of the sulfur for sale; MSCC emits non-recovered sulfur through its stacks as SO_2 pollution. MSCC Br. 5.

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In 2002, MSCC petitioned for review of EPA's May 2, 2002 SIP action.[16] The case was stayed pending EPA's promulgation of a FIP to remedy the SIP's disapproved portions. In 2008, EPA promulgated the FIP. Neither the State nor anyone other than MSCC has challenged the SIP Call or EPA's SIP or FIP actions.

EPA moved to consolidate MSCC's SIP and FIP petitions, but MSCC successfully opposed, arguing its petitions presented "entirely different" issues (*see* MSCC's 12/9/2009 opposition, at 5-6) and asking to file full-length opening and reply briefs in each case. Now, MSCC acknowledges (Br. 63) that the FIP case "implicates many of the same issues" raised here.[17]

SUMMARY OF ARGUMENT

The Court should deny the petition because EPA's actions were reasonable and consistent with the CAA and EPA's regulations.

First, MSCC – which improperly relies on extra-record materials throughout its brief – lacks standing to challenge the SIP Call, a preliminary action that directed the State to submit SIP revisions but did not directly harm MSCC. Any injury MSCC claims to have suffered is traceable not to the SIP Call but to the regulatory controls adopted through Montana's SIP or EPA's FIP, both of which MSCC is challenging before this Court.

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[16] No petition was filed challenging EPA's May 22, 2003 action.

[17] For example, in attempting to demonstrate standing in this *SIP* case, MSCC relies on (Br. 13-14) the *FIP's* alleged impact on MSCC's operations.

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Second, even if MSCC has standing to challenge the SIP Call, it fails to show that the SIP Call's reliance on modeling was arbitrary and capricious. EPA properly utilized modeling data to find Montana's existing SIP substantially inadequate to attain and maintain the NAAQS.

Third, MSCC's attacks on EPA's partial SIP disapproval lack merit. EPA properly disapproved those parts of the State's SIP submissions – including the attainment demonstration and provisions dealing with stack height, flares, and stack emissions – that did not demonstrate that the NAAQS are attained and maintained.

STANDARD OF REVIEW

The Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A), specifies the standard of review: agency action may be set aside only if "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[18]

Whether the CAA allows the approach EPA took regarding Montana's SIP is an issue of statutory construction for which *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984), supplies the standard of review. First, the Court must determine whether Congress has "directly spoken to the precise question at issue." *Id.* at 842-43. If so, the Court gives effect to that intent. However, if the statute is ambiguous, the Court must defer to the administering agency's interpretation if it

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[18] EPA's SIP action is not among those rulemakings enumerated in § 7607(d)(1), for which § 7607(d)(9) provides the standard of review.

is "permissible." *Id.* at 843.

When faced with a problem of statutory construction, this Court shows great deference to the interpretation given by EPA and the officers charged with the CAA's administration. *MacClarence v. EPA*, 596 F.3d 1123, 1130 (9th Cir. 2010).

This Court also accords "very great deference to an agency's interpretation of its regulations," *Wickland Oil Terminals v. Asarco*, 792 F.2d 887, 891 (9th Cir. 1986), and even greater deference to EPA's evaluation of technical data within its area of expertise. *See Ass'n of Irritated Residents v. EPA*, 423 F.3d 989, 997 (9th Cir. 2005) (where agency's determination is "scientific in nature," it is "entitled to the most deference on review"); *Envtl. Def. Ctr. v. EPA*, 344 F.3d 832, 869 (9th Cir. 2003) (great deference warranted when reviewing EPA's "technical analysis and judgments, based on an evaluation of complex scientific data within the agency's technical expertise.").[19]

In reviewing the reasonableness of EPA's actions, the Court is "not to

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[19] Citing *Hall v. EPA*, 273 F.3d 1146, 1159-60 (9th Cir. 2001), MSCC argues (Br 14-15) that because "EPA's SIP review decisions have no precedential value," they are not entitled to *Chevron* deference. However, this is not a case where EPA is relying on its decision on another SIP as precedent. EPA's action here was based on its interpretations of the CAA, its implementing regulations, and its technical findings and judgments. This Court has made clear that EPA is entitled to deference in such situations. *See MacClarence v. EPA*, 596 F.3d at 1130 (in context of petition for review of EPA order denying request that EPA object to issuance of CAA permit, this Court stated "*Chevron* provides the guiding principles for according deference to an agency's interpretation of a statute it administers.").

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substitute its judgment for that of the agency." *Motor Vehicle Mfrs. Ass'n v. State Farm*, 463 U.S. 29, 43 (1983).

ARGUMENT

I. MSCC IMPROPERLY RELIES ON POST-DECISIONAL INFORMATION

The judiciary determines whether an agency's decision is "sustainable on the administrative record." *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 549 (1978) (citing *Camp v. Pitts*, 411 U.S. 138, 142-43 (1973), for axiom that "focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court"). *See also Ctr. for Biological Diversity v. Fish & Wildlife Serv.*, 450 F.3d 930, 943 (9th Cir. 2006) (challengers in APA cases may not use post-decisional information to attack agency's decision).

MSCC inappropriately relies on information post-dating the challenged EPA actions, taken in 1993 and 2002. For example, MSCC includes charts showing: "Historical" SO_2 emissions data through 2009 (Br. 36); "SO_2 Concentrations 1999-2006" (*id.* at 37); and "SO_2 Emissions" through 2006 (*id.* at 56). *See also* Br. 37, 56.[20] The Court should disregard all MSCC arguments resting on post-decisional or extra-record information. *See Rybachek v. EPA*, 904

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[20] MSCC's "Excerpts of Record" also includes obviously post-decisional materials. *See, e.g.*, ER 177-203 (email/presentation from 2007); ER 380-86 (MSCC comments from 2006).

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F.2d 1276, 1296 n.25 (9th Cir. 1990) (granting EPA's request to strike portions of appellant's briefs relying on extra-record materials).[21]

II. MSCC LACKS STANDING TO CHALLENGE THE SIP CALL

After acknowledging that EPA's 17-year old SIP Call "is not final agency action subject to judicial review on its own" (citing *Greater Cincinnati Chamber of Commerce v. EPA*, 879 F.2d 1379 (6th Cir. 1989)), MSCC argues (Br. 2) that a challenge to the SIP Call is "ripe at this time as part of the review of EPA's partial disapproval of the Montana SO_2 SIP." However, MSCC fails to establish standing to challenge the SIP Call, a preliminary action that directed Montana to submit SIP revisions but had no direct impact on MSCC.[22]

In *Greater Cincinnati,* the Sixth Circuit held that EPA's SIP Call for Hamilton County, Ohio was unreviewable.[23] While Ohio worked with EPA to address the SIP's inadequacies, an industry group challenged the SIP Call, which, as here, was based not on monitored NAAQS violations, but on modeling. *Id.*

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[21] A proposed amicus brief submitted by industry groups similarly relies on post-decisional information and should be disregarded. *See* Amicus Br. 10 (discussing air quality data collected "since the 2002 Montana SIP disapproval"). The proposed amicus brief also improperly seeks to raise new issues not addressed in MSCC's brief, and should be disregarded for that reason, as well.

[22] If the SIP Call burdened anyone it burdened Montana, but the State viewed it as justified and never challenged it.

[23] EPA issued that SIP Call notwithstanding that Hamilton County, like Billings, Montana, was not a designated SO_2 nonattainment area. 879 F.2d at 1381.

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The Sixth Circuit interpreted the CAA as allowing review only of agency actions that (1) are "definitive" statements of EPA's position, and (2) have a "direct and immediate" effect on complainant's "day-to-day business." 879 F.2d at 1382. "Only the approval or promulgation of a revised SIP for Hamilton County will have the effect on the petitioners that is required to constitute final agency action." *Id.* Citing *Illinois v. EPA*, 621 F.2d 259, 261 (7th Cir. 1980), the court deemed the Ohio SIP Call "an act of limited consequence preliminary to other events anticipated by the Act." 879 F.2d at 1382. The CAA was "clear" that "issuance of a notice of deficiency and the request for a revised SIP" in a SIP Call was not judicially reviewable because it "in no way alters the obligations of the parties in either a practical or legal sense." *Id.* at 1383.

Although *Greater Cincinnati* focused on finality and ripeness, standing implicates similar concerns. To establish Article III standing, a party must show it has "(1) "suffered an injury in fact – an invasion of a legally protected interest which is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical"; (2) that the injury is "fairly . . . trace[able] to the challenged action of the defendant"; and (3) that it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992) (internal quotation marks and citations omitted).

MSCC has not even attempted to show in its conclusory standing discussion

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(Br. 13-14), that it suffered a concrete and particularized injury from the SIP Call. MSCC's avowal (*id.* 13) it was "directly injured" by the SIP Call amounts to nothing more than an assertion that EPA's SIP Call and subsequent disapproval of Montana's SIP led – years later – to EPA's promulgation of a FIP (which MSCC is challenging in a separate petition that is not consolidated with this case). MSCC asserts (*id.*, emphasis added) that "short-term emission limits *in the FIP*" have subjected it to "substantial and unreasonable costs" (none of which are documented in the record for this SIP matter) and to "operational uncertainty." Such vague and unsubstantiated allegations are manifestly insufficient to support standing to challenge the SIP Call.

Further, the attenuated causation that MSCC postulates is inadequate to support a claim of "direct" injury. A SIP Call initiates an iterative process between state and EPA that may (or may not) result in changes to the status quo for any particular source. EPA's final position is not settled until that process (or a subsequent FIP process) concludes. Here, Montana ultimately developed and submitted its own SIP revisions, which included new emissions limitations. EPA was then required by the CAA to evaluate the submissions' adequacy and act on them, resulting in the partial disapproval. This Court should reject MSCC's attempt to bootstrap standing to challenge the SIP Call based on vague claims of injury from later regulatory actions, particularly where, as here, the complaining

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party (MSCC) has petitioned for judicial review of those actions.[24]

III. THE SIP CALL WAS LAWFULLY ISSUED AND REASONABLE

The record in this case amply demonstrates that even if MSCC had standing to challenge it, the SIP Call was lawful, reasonable, and technically supported.

A. The SIP Call Was Properly Issued Under the CAA And EPA Regulations

Under §§ 7410(a)(2)(H) and 7410(k)(5), EPA is to call for SIP revisions whenever it finds SIPs "inadequate to attain or maintain" the NAAQS. Section 7410(a)(2)(K) authorizes EPA to "prescribe" air quality models "for the purpose of predicting the effect on ambient air quality of any emissions of any [NAAQS-regulated] air pollutant." EPA regulations, in turn, provide that the adequacy of SIP control strategies "be demonstrated by means of applicable air quality models, data bases and other requirements." 40 C.F.R. § 51.112(a)(1).[25] EPA properly utilized such modeling in determining that Montana's SIP needed to be revised.

EPA's "Technical Support Document" ("TSD") (ER 133-47) provided a

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[24] For much the same reason, MSCC's attack on the SIP Call is moot. Later events, most notably Montana's development and submission of SIP revisions, have rendered the SIP Call irrelevant for purposes of this case. *See Amer. Tunaboat Ass'n v. Brown*, 67 F.3d 1404, 1407 (9th Cir. 1995) (claim is moot "if it has lost its character as a present, live controversy.").

[25] EPA regulations at the time of the SIP Call included similar language. 40 C.F.R. § 51.112(a) (1987) provided that the "adequacy of a control strategy shall be demonstrated by means of a proportional model or dispersion model or other procedure which is shown to be adequate and appropriate for such purposes."

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detailed rationale for the SIP Call. It explained that dispersion modeling – a mathematical technique that predicts air pollutants' ambient concentrations based on emissions and meteorology – is "the only tool available that can estimate current or future air quality conditions at all locations where the public has access (ambient air)." ER 141. Modeling, therefore, is not only an accepted tool but a necessary one for preparing SIPs and evaluating NAAQS compliance.

The SIP Call TSD noted that while ambient air monitors at "various locations in Billings since the late 1970s" registered readings exceeding the SO_2 NAAQS, there had not been more than one monitored exceedance in a given year and therefore no monitoring-revealed NAAQS "violations." ER 136. The TSD explained that in the Billings area, however, it was "not practical, given the number and complexity of sulfur dioxide sources, to install a sufficient number of monitors to provide the spatial coverage provided by air quality dispersion models." ER 141. Further, monitors were not located in "areas of maximum concentration," and areas with "the most severe exceedances according to the studies have never been monitored – or were once monitored but no longer." ER 137.

The SIP Call TSD also described the two early-1990s modeling studies that assessed Billings area SO_2 emissions. ER 136. Following EPA's Modeling Guideline's techniques, both predicted violations at "allowable" rates (levels allowed under permits held by area facilities emitting SO_2) and "actual" rates in

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worst-case meteorological conditions. ER 139.

Thus, EPA's 1993 SIP Call letter reasonably advised that the Agency had found the 1979 Billings/Laurel SIP inadequate "based on predicted violations" of the SO_2 NAAQS that had been modeled in the Billings-Laurel area. 58 Fed. Reg. at 41,430. As discussed (*supra*, Statement of Facts) Montana agreed.

B. MSCC's Contentions That Area Emissions Were Decreasing At The Time Of The SIP Call And That The Area Had An Extensive Monitoring Network Are Refuted By The Record

MSCC contends (Br. 16) that EPA's reliance on the modeling was arbitrary since area emissions supposedly had been "substantially reduced" under the 1979 SIP, and a supposedly "extensive network" of monitors had not measured NAAQS violations. MSCC claims (Br. 27) that EPA unlawfully favored modeling over "more than 30 years of monitoring data showing that Billing has never once violated the SO_2 NAAQS and is well-below the [pre-June 2010] NAAQS."

MSCC's challenge improperly rests on post-decisional (*i.e.*, post-1993) information. Although MSCC does not delineate the precise "30-year" period it alludes to, based on its use of the present tense and the chart it includes in its brief (at 36), that unspecified period appears to be approximately 1983 to the present. (MSCC does not cite data in the record for 1963-83.) MSCC's argument distills to a claim that the SIP Call was erroneous in *hindsight* because later-collected data do not reflect subsequent NAAQS violations. That argument contravenes basic tenets of record review and must be disregarded.

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Proper analysis – of data collected *prior* to the SIP Call – refutes MSCC's claim that SO_2 emissions in Billings/Laurel had been "substantially reduced" when the SIP Call was issued. Even MSCC's chart (at 36) shows that SO_2 emissions did *not* decline in the years preceding the SIP Call: just under 35,000 tons of SO_2 were emitted by Billings/Laurel industries in 1983, compared to slightly more than 35,000 tons in 1993.

Moreover, SO_2 emissions were *increasing* around the time of the SIP Call, peaking in 1993. MSCC's chart shows that between 1991 and 1993, annual SO_2 emissions in the area *increased* 16 percent, from approximately 30,000 tons in 1991 to slightly more than 35,000 tons two years later. These figures are better reflected on a chart that is in the record (SER 65), confirming that annual SO_2 emissions were highest at the end of the 1983-93 period, when EPA issued the SIP Call.

Further, the record contradicts MSCC's claim (Br. 16) that before the SIP Call, Billings/Laurel had an "extensive" network of SO_2 monitors. In 1983, the local SO_2 monitoring network consisted of just three or four sites in Billings and none in Laurel. SER 38. Three sites were discontinued between December 1983 and January 1987, leaving just one in the entire Billings/Laurel area. *Id.* at 44. While a few monitoring sites were added later, EPA determined (and Montana agreed) that it was impractical to install a sufficient number in the area to provide the "spatial coverage provided by dispersion models" (ER 141).

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C. MSCC Incorrectly Insists That EPA Should Have Disregarded Modeling Results Predicting NAAQS Violations

Monitoring is "limited in time as well as space" and "can only measure pollutant concentrations as they occur; it cannot predict future concentrations when emission levels and meteorological conditions may differ from present conditions." 67 Fed. Reg. at 22,185.

> Modeling, on the other hand, can predict for all possible conditions and can show how well the emission limitations in the SIP will protect air quality under future conditions.

Id. at 22,186. Even when monitors are located at "points of maximum concentration," those locations continually change in response to altered emission patterns and changing emission rates from existing sources, as well as in response to new sources and meteorological variability. *Id.*

EPA's reliance on modeling in issuing the SIP Call was consistent with its 1986 modeling guideline in effect at the time, which stated (in § 11.2.2) not only that modeling is the "preferred method for determining emission limitations for both new and existing sources," but also that when a preferred model is available, "model results alone (including background) are sufficient."[26] Thus, in the "usual" case, "regulators may rely on the results of modeling and are not required to consider measured data from local ambient monitoring." 67 Fed. Reg. at

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[26] Guideline § 11.2.2 was subsequently renumbered §10.2.2 and incorporated into 40 C.F.R. part 51, appendix W.

22,185-86.[27]

The SIP Call was fully consistent with EPA's longstanding views on modeling's value when assessing SO_2-impacted areas. A 1982 EPA memorandum stated that modeling is "especially important when dealing with areas dominated by point sources of SO_2," a description that fits here. SER 205. The memorandum noted that "monitors will not be able to tell the whole story" and that modeling is "essential to evaluate comprehensively and thoroughly the sources' impacts as well as the areas of highest concentrations." *Id.* at 206.[28]

MSCC claims (Br. 18-19) that the modeling here used "unrealistic" assumptions, but the assumptions were based on facts. Modeling properly "assumes the maximum emission levels allowed under applicable emission limitations and assumes worst case meteorological conditions based on evidence of historical meteorological patterns."

> The models analyze the combined effects of the worst case values of the two variables (emission levels and meteorology) on ambient concentrations of pollutants at a multitude of ''receptors'' or sites, to predict maximum concentrations that may not have occurred yet, but

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[27] Montana regulators, for example, had previously utilized modeling to set emission limits for ExxonMobil (MSCC's sulfur gas supplier). ER 272.

[28] Similarly, a 1983 EPA memorandum stated that in "most SO_2 cases, monitoring data alone will not be sufficient for areas dominated by point sources" because a "small number of ambient monitors usually is not representative of the air quality for the entire area." SER 209. "Dispersion modeling employing the legally enforceable SO_2 SIP limits will generally be necessary to evaluate comprehensively the sources' impacts as well as to identify the areas of highest concentrations." *Id.*

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could occur in the future.

67 Fed. Reg. at 22,186.[29] Further: "It is impossible to capture worst case conditions, for either emission levels or meteorology, with only a few monitors." *Id.*

D. MSCC Erroneously Claims That The CAA Precludes Using Modeling Data For SIP Calls

MSCC's attack on the SIP Call's legal underpinnings is flawed, as no CAA provision precludes EPA's use of modeling in SIP actions. MSCC claims the 1990 Amendments to § 7501(2) – which formerly defined a "nonattainment area" as "an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the Administrator to be reliable) to exceed any [NAAQS]" – has such preclusive effect. MSCC notes (Br. 25) that in amending this provision, Congress deleted the words "calculated by air quality modeling (or other methods determined by the Administrator to be reliable)," and argues that this forbids EPA from relying on modeling to determine whether an area meets the NAAQS.

MSCC omits that Congress also deleted reference to "monitored data" in amending the § 7501(2) definition, substituting a cross-reference to § 7407(d), so that § 7501(2) now simply reads: "The term 'nonattainment area' means, for any air pollutant, an area which is designated 'nonattainment' with respect to that

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[29] *See* 40 C.F.R. pt. 51 appendix W § 8.3.1.1 (modeling should "ensure that worst case meteorological conditions" are represented) and Table 8-1 (model emission input data for point sources to reflect "maximum allowable emission limit").

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pollutant within the meaning of [§] 7407(d) [air quality control regions] of this title." Under MSCC's logic, the amendment would have "effectively" made it arbitrary to use monitored data to assess NAAQS compliance. But, unsurprisingly, nothing in the amended provision restricts the type of data that EPA may use when assessing attainment. Further, the legislative history (S. Rep. No. 101-228, at 15 (1989)) that MSCC cites (Br. 26) undermines its argument by making clear that where "appropriate and necessary," EPA "may rely on modeling."

MSCC ignores that the CAA expressly recognizes modeling as an appropriate regulatory tool. Section 7410(a)(2)(K) requires that all SIPs provide for "(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a [NAAQS], and (ii) the submission, upon request of data related to such air quality modeling to the Administrator." Section 7407(d), which governs EPA's designation of areas as "attainment," nonattainment," or "unclassifiable," contains no restriction on the information EPA may use to support a designation; in fact, in re-designating an area, § 7407(d)(3)(A) broadly allows EPA to rely on "air quality data, planning and control considerations, or any other air quality-related considerations the Administrator deems appropriate" when "available information" indicates an area's designation should be revised.

MSCC cites (Br. 20) an extra-record EPA guidance (OAQPS No. 1.2-011)

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that instructed EPA regulators in 1975 to focus on "available" air quality data and whether they are below or not far above the NAAQS.[30] Leaving aside that "available data" is not limited to monitoring data but would also include modeled data, MSCC ignores that the guidance (at 23-25) not only contains an entire section on "diffusion modeling" – described as "the preferred predictive tool available in relating emissions to air quality data" and "the best available approach to predict resulting ambient levels caused by the application of emission limitations on emission sources" – it also includes (App. "A") an "example" SIP Call notice specifically relying on "mathematical diffusion modelling analysis."

Also to no avail, MSCC attacks (Br. 22-25) EPA's citation in the SIP Call TSD to several cases supporting EPA's reliance on modeling. MSCC argues that *Northern Plains Resource Council v. EPA*, 645 F.2d 1349 (9th Cir. 1981), is off-point because the complaining party was unable to produce monitoring data inconsistent with the model EPA had used for its projections. *Northern Plains* is informative, however, because this Court held that EPA's reliance on a model would be arbitrary only if "EPA ignored reliable data that so undermined EPA model projections that reliance on the model was irrational." *Id.* at 1362. As EPA explained here, 67 Fed. Reg. at 22,186, the SIP Call did not ignore reliable data but rather concluded that the lack of monitored violations did not discredit the modeled projections:

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[30] For the Court's convenience, EPA includes a copy of this 1975 document in its Statutory & Regulatory Addendum.

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> We analyzed the available monitoring data, compared it with modeling results, and determined that it did not undermine the modeling results because the data had not been obtained at locations where the models predicted maximum concentrations of SO_2. In addition, real time monitoring data was available to the operators of some of the industry sources, who could have controlled their operations to avoid NAAQS exceedances when concentrations approached critical levels.

MSCC also challenges (Br. 24-25) the TSD's citation to *PPG Industries, Inc. v. Costle*, 630 F.2d 462, 464 (6th Cir. 1980), where the court agreed that "projected future violations may provide the basis for a nonattainment designation in currently clean areas." MSCC argues *PPG* should be disregarded because the court based its holding on § 7501(2), which, MSCC notes, was amended to remove express mention of modeling as a method for assessing attainment. But *PPG*'s statement that nothing in the CAA requires EPA to "prefer monitoring to modeling," *id.* at 478, is unaffected by the 1990 amendment, which merely removed reference to both monitoring and modeling in § 7501(2).

MSCC's claim (Br. 26) that since 1990, EPA has "only used monitoring data from properly located EPA-approved monitors to determine compliance with the NAAQS," is inaccurate. MSCC cites discussion from EPA's (again, post-decisional) 2009 proposed revisions to the SO_2 NAAQS, but that discussion relates to the specific proposed amendments to the NAAQS's monitoring requirements and in no way supports MSCC's argument. MSCC ignores that EPA's final rule revising the NAAQS explains both the long history of EPA's reliance on modeling as a generally more accurate tool than monitoring to determine SO_2 NAAQS compliance, and EPA's expectation to continue to use

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modeling under the new 1-hour SO_2 NAAQS. *See* 75 Fed. Reg. at 35,550-54.

E. MSCC Errs In Claiming That EPA's SIP Call Infringed On Montana's Rights

MSCC's suggestion (Br. 28) that Montana shared its view that the SIP Call constituted a "breathtaking" intrusion on the State's rights is belied by the record. Montana not only did not object to the SIP Call, it agreed that its SIP needed revision. Even after the SIP Call, Montana retained authority to adopt any remedial mix of limitations it chose in the SIP, so long as they complied with the CAA and EPA's regulations.

MSCC's claim that the SIP Call represents "another example of EPA seeking to expand its regulatory reach into an area that Congress specifically reserved for the States" (Br. 29) echoes a recurring theme in MSCC's brief and need not detain the Court. MSCC cites *Train v. NRDC*, 421 U.S. 60 (1975), which, it argues, counsels that EPA's authority is limited to assuring that SIPs comply with the Act and are sufficient to attain and maintain the NAAQS. But Congress did not expect EPA to look away when it discerns SIP deficiencies that can jeopardize attainment, and crafted §§ 7410(a)(2)(H) and 7410(k)(5) to address such situations.

MSCC apparently believes EPA should refrain from issuing SIP Calls and should rubberstamp SIPs, but Congress did not assign the Agency that role:

> The overriding purpose of the Clean Air Act is to force the states to do their job in regulating air pollution effectively so as to achieve baseline air quality standards, the NAAQS. The primary mechanism for achieving the NAAQS are through the local and state planning

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> process which create the SIPs. When states fail to achieve the NAAQS they face a variety of penalties, including the threat that the federal government will intervene and impose its own plan.

Exxon Mobil Corp. v. EPA, 217 F.3d 1246, 1255-56 (9th Cir. 2000). EPA appropriately discharged its obligations under the CAA when it issued the SIP Call.

IV. MONTANA AND EPA APPROPRIATELY AGREED THAT MONTANA NEEDED TO DEMONSTRATE THAT ITS REVISED SIP WOULD ATTAIN AND MAINTAIN THE NAAQS

EPA's role under the CAA is to review SIP revisions and approve only those demonstrating that the NAAQS will be attained and maintained. *See* § 7410(*l*) (EPA "shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment."); § 7407(a) (SIP must "specify the manner" in which the NAAQS "will be achieved and maintained" in the state.").

Consistent with those requirements, EPA advises that the "purposes" of a SIP "are to make demonstrations (of how attainment, maintenance, and progress will be achieved) and to provide a control strategy that will achieve the necessary reductions and otherwise meet the requirements of the Act." 57 Fed. Reg. 13,498, 13,567 (Apr. 16, 1992) (quoted in *Hall*, 273 F.3d at 1153). Each plan "must *demonstrate* that the measures, rules and regulations contained in it are adequate to provide for the timely *attainment* and maintenance of the national standard that it implements." 40 C.F.R. § 51.112(a). (Emphasis added.)

Section 51.112(a) describes an "attainment demonstration" as a

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demonstration, "by means of applicable air quality models, data bases, and other requirements specified in appendix W of this part," that a plan's pollution controls will provide for timely attainment and maintenance of the NAAQS. 40 C.F.R. § 51.112(a)(1). Appendix W, in turn, states (at § 10.2.2) that modeling is the "preferred method for determining emissions limitations for both new and existing sources," and that when a preferred model is available, "model results alone are . . . sufficient." " *See Comite Para El Bienestar de Earlimart v. Warmerdam*, 539 F.3d 1062, 1066 (9th Cir. 2008) (attainment demonstration is "technical analysis that through air quality modeling demonstrates that the 'control measures' proposed by the SIP will ensure" that areas not in attainment will attain NAAQS).

EPA's role is well-described in *Hall*, 273 F.3d at 1159, where this Court stated "EPA must determine the extent of pollution reductions that are required and determine whether the emissions reductions effected by the proposed revisions will be adequate to the task." *See also Train*, 421 U.S. at 79, 93 (in reviewing SIPs, EPA must determine whether "ultimate effect of a State's choice of emission limitations" is compliance with the NAAQS, and to accomplish this EPA must "measure the existing level of pollution, compare it with the national standards, and determine the effect on this comparison of specified emission modifications.").

Montana understood that the CAA necessitates an attainment demonstration and worked cooperatively with EPA toward that end. Upon being notified of the

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impending SIP Call, Montana stated that it would conduct modeling that would "evaluate emissions scenarios under consideration for various control strategies," *i.e.*, an attainment demonstration. SER 152. In a 1995 letter to EPA (SER 34-35), Governor Racicot advised that Montana's submittal included "dispersion modeling analysis for Billings" that Montana believed "demonstrates compliance with the NAAQS based upon the SIP emission limitations" in the State's orders with every SO_2-emitting source in the area except MSCC (which was aggressively pursuing a contested case against Montana regarding its order). The Governor recognized that "without an enforceable control strategy for MSCC," the "Billings SO_2 control plan cannot demonstrate compliance with the NAAQS," necessitating "a partial disapproval for the MSCC control plan" by EPA. *Id.* at 35. MSCC's argument (Br. Part V) that EPA "compelled" Montana to perform an attainment demonstration following the SIP Call has no basis in fact.[31]

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[31] Attempting to buttress its claim that EPA coerced Montana into submitting an attainment demonstration, MSCC inaccurately depicts Montana's relations with EPA during the SIP revision process as highly adversarial. MSCC (Br. 32) quotes from a State letter (ER 101-12) explaining why CAA sanctions against Montana would be inappropriate. (EPA did not impose sanctions against Montana.) MSCC ignores portions of the letter where Montana reports that it frequently requested EPA's guidance. *See* ER 105 (State "sought EPA's advice on issues ranging from interpretation of the stack height regulations to modeling protocol"). MSCC also omits that Montana reported agreement with EPA (SER 201) on "95% of the State's SIP submittal." Although MSCC claims (Br. 37) that EPA made "outrageous demands" on Montana, the State has neither challenged EPA's decisions nor intervened on MSCC's behalf. Finally, this Court has stated that "concepts of coercion and duress are inappropriate in characterizing dealings between federal and state governments." *Air California v. DOT*, 654 F.2d 616,

(continued...)

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MSCC cites (Br. 33-34) CAA provisions addressing ozone and particulate matter ("PM") – neither of which is involved in this case – and asserts that these provisions prove that Congress limited attainment demonstration requirements to "areas that had relatively serious nonattainment problems." But any suggestion that the 1990 CAA Amendments exempted SO_2-impacted areas from requirements that SIP revisions demonstrate attainment is deeply flawed. Section 7514 expressly provides that an area designated nonattainment for SO_2 and other named pollutants "shall submit" to EPA a plan meeting the "requirements of this part." "This part" refers to Part D ("Plan Requirements for Nonattainment Areas"), which includes the general nonattainment requirements in Subpart 1 (§§ 7501-7509a). In turn, § 7502(c)(1) expressly requires the plan to "provide for attainment of the national primary ambient air quality standards," and § 7502(c)(6) requires the plan to "include enforceable emission limitations" as "necessary or appropriate to provide for attainment of such standard" by the "applicable attainment date." Contrary to MSCC's assertion, attainment demonstrations are required for SO_2 nonattainment areas.[32]

MSCC cites EPA's (post-decisional) 2007 "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone,

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[31](...continued)
621 (9th Cir. 1981).

[32] MSCC also asserts, incorrectly (Br. 34), that the CAA requires attainment demonstrations only for "serious" PM nonattainment areas. *See* § 7513a(a)(1)(B) (requiring demonstrations for "moderate" PM areas).

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PM2.5, and Regional Haze," and argues (Br. 34-35) that it includes no "suggestion" that an attainment demonstration is "necessary or appropriate for SO_2 or for any type of attainment area."[33] However, that Guidance is inapplicable. It was limited to visibility and the ozone and PM2.5 NAAQS because states were in the process of developing SIPs for regional haze visibility requirements and for those two then-recently promulgated NAAQS.[34] It neither limits state and EPA responsibilities when EPA finds a previously approved SO_2 SIP substantially inadequate, nor restricts EPA's authority to require modeled attainment demonstrations in that situation.

Further, § 7410(a)(1), directs states – following EPA's promulgation or revision of any NAAQS under § 7409 – to submit SIPs that provide for implementation, maintenance, and enforcement of the NAAQS. Under this section, the duty to submit such a SIP for each pollutant subject to a NAAQS does not depend on a state having areas designated "nonattainment." Also, to be approved, each SIP must reflect numerous requirements, including providing "for revision of such plan" whenever EPA finds that the plan is "substantially

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[33] MSCC's quotation from the Guidance (Br. 35) does not advance MSCC's anti-modeling position. In explaining that models do not "perfectly predict" observed air quality at particular locations, the Guidance merely notes the uncertainty inherent in modeling for the pollutants the Guidance addresses and recommends using models "in concert with" observed data where available, which Montana did here.

[34] MSCC never mentions EPA's *SO_2* Guideline, EPA-452/R-94-008, found at http://www.epa.gov/ttn/oarpg/t1/memoranda/so2_guide_092109.pdf.

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inadequate" to attain the NAAQS. § 7410(a)(2)(H)(ii). Nor is EPA's authority to find a SIP substantially inadequate under § 7410(k)(5) limited by an area's designation. That section provides that whenever EPA finds that an applicable SIP "for any area" is substantially inadequate to attain or maintain the NAAQS, EPA "shall require the State to revise the plan as necessary to correct such inadequacies." MSCC fails to explain how it is even possible to "correct" a SIP that is found inadequate to maintain attainment with anything *other* than a new "attainment demonstration."

MSCC suggests (Br. 35-37) that even if the CAA authorized EPA to require a modeled attainment demonstration in order to approve Montana's SIP, EPA should have elected not to because "observed" air quality data (much of it post-decisional) supposedly showed "emissions reductions and the corresponding improvements in air quality." This argument rests on the same flawed premises MSCC advanced in attacking the SIP Call – *i.e.*, that unless NAAQS violations are documented through monitoring, SIPs should be left intact, even where state and federal authorities agree that modeling has exposed air quality problems. Attainment demonstrations appropriately utilize EPA-approved computer models that take many factors into account to predict the effects of emissions on air pollution. Here, the modeling for the revised SIP "considered all Billings/Laurel area sources, stack parameters, building dimensions, emission rates, terrain elevations, and five years of continuous meteorological data collected at a representative location." 67 Fed. Reg. at 22,185. Nothing in the CAA precludes

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reliance on such modeling to determine whether an area will attain the NAAQS. To the contrary, modeling is a favored technique, particularly for SO_2.

V. EPA REASONABLY DISAPPROVED MONTANA'S ATTAINMENT DEMONSTRATION AND EMISSION LIMITS FOR MSCC'S 100-METER STACK DUE TO INAPPROPRIATE STACK HEIGHT CREDIT

In 1977, Congress prohibited use of dispersion techniques, including stacks exceeding the height defined by "good engineering practice" ("GEP"), as a means to meet the NAAQS, and directed EPA to adopt implementing regulations. In 1994, MSCC supplemented its existing 30-meter stack with a new 100-meter stack to rely on the taller stack's dispersive effects and avoid pollution controls in the Billings/Laurel SO_2 SIP. SER 175, 195. Montana contravened the CAA and EPA's regulations when it set SIP emission limits for MSCC's 100-meter stack based on credit for that stack (97.5 meters) that exceeded GEP height, and EPA reasonably disapproved those limits.[35]

A. Legal Framework Governing Tall Stacks

In SIPs, emission limits for sources "are fixed on the basis of local, ground-level concentrations of pollutants, which cannot exceed [the NAAQS]." *Sierra Club v. EPA*, 719 F.2d 436, 439 (D.C. Cir. 1983). A source can lower ground-level concentrations "not only by reducing the amount of pollutants it

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[35] MSCC includes (Br. 59) a separate argument that EPA arbitrarily approved other sources' "variable emissions limits" but disapproved MSCC's. MSCC misses the point. Because Montana set MSCC's limits based on stack height credit that exceeded GEP, EPA was unable to approve *any* emission limitations – fixed or variable – that Montana submitted for MSCC's 100-meter stack.

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emits into the air, but also by raising the height of its stack." *Id.*

To meet the NAAQS in the CAA's early years, many sources found it cheaper to build tall stacks than install pollution controls. *Id.* Concerned about cumulative atmospheric loading and long-range transport of pollutants, Congress adopted § 7423 in 1977 to control this use of tall stacks. As discussed in *Sierra Club*, 719 F.2d at 441, Congress "refused to allow reliance" on tall stacks because "dispersion techniques do not reduce the amount of pollution in the air, but merely spread it around, exporting it to other areas . . . and exposing previously pristine areas to contamination."

Congress wanted to limit dispersion but recognized that some stack height prevents harmful downwash of pollutants near a source. Hence, Congress introduced "good engineering practice" ("GEP") to delineate acceptable stack height: "[t]he degree of emission limitation required . . . under an applicable implementation plan . . . shall not be affected in any manner by . . . so much of the stack height of any source as exceeds good engineering practice." § 7423(a)(1).

Section 7423(c) defines "GEP" stack height as "the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles."

Congress left "the entire question of what method to use to determine GEP height to the discretion of the Administrator." *Sierra Club*, 719 F.2d at 457. EPA

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issued stack height regulations in 1982 and revised them after the 1983 *Sierra Club* ruling. *See* 50 Fed. Reg. 27,892 (July 8, 1985). As relevant here, the 1985 regulations were upheld. *NRDC v. Thomas*, 838 F.2d 1224 (D.C. Cir. 1988).

The regulations consist of several interdependent provisions: 40 C.F.R. § 51.118 repeats § 7423's prohibition on use of stack height above GEP in determining SIP emission limits. Thus, for a 100-meter stack with GEP height of 65 meters, a state may not input a value greater than 65 meters in the computer model used to set SIP limits.

40 C.F.R. § 51.100(ii) defines GEP stack height as the greater of (1) 65 meters ("*de minimis*" height), (2) the height calculated using one of two formulas ("formula height"), or (3) the height demonstrated using fluid modeling[36] or a field study "which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures or nearby terrain features." 40 C.F.R. § 51.100(ii)(1)-(3).

For MSCC's stack, the applicable formula is "H + 1.5L" – height plus 1.5 times the lesser of the height or width of a nearby structure. *Id.* § 51.100(ii)(2)(ii). The formula provides an estimate of the stack height needed to avoid excessive pollutant concentrations due to downwash from nearby structures. 50 Fed. Reg. 27,900; SER 22, 27-33. However, EPA stated in its Stack Height TSD that the

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[36] Fluid modeling is wind tunnel testing using a scale model. 64 Fed. Reg. at 40,799.

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formula is inaccurate when applied to very tall structures like stacks and towers, and, moreover, these structures "should not be considered in GEP stack height determinations." SER 23.

Montana determined that formula height for MSCC's stack was 47.8 meters (157 feet), a value MSCC agreed with. SER 94, 173. Thus, MSCC could only validly achieve greater stack height credit under § 51.100(ii) by accepting *de minimis* stack height credit under § 51.100(ii)(1) (65 meters) or justifying need for a height greater than formula height ("above-formula" credit) through fluid modeling under § 51.100(ii)(3).

Proper fluid modeling determines the minimum stack height at which excessive concentrations are avoided. Section 51.100(kk) contains three distinct definitions of "excessive concentration." Section 51.100(kk)(1), which must be followed by sources seeking above-formula credit, defines "excessive concentration" as a maximum ground-level concentration from stack emissions, caused by downwash, wakes, and eddy effects produced by nearby structures or terrain features, which exceeds the maximum concentration experienced absent such effects by at least 40 percent and which contributes to a total concentration due to emissions from all sources that is greater than "an ambient air quality standard." EPA interprets the term "ambient air quality standard" in § 51.100(kk)(1) as meaning a *national* standard, *i.e.*, NAAQS, because another standard would not be responsive to health and welfare concerns "specified by regulation or by act of Congress as possessing health or welfare significance." 50

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Fed. Reg. at 27,898.

The "allowable emission rate" for demonstrations under § 51.100(kk)(1) is "prescribed by the new source performance standard" ("NSPS") applicable to the source category unless the owner/operator demonstrates that this emission rate is "infeasible." Since inception, EPA has interpreted this language to require ongoing compliance with the NSPS limit as a condition of obtaining above-formula credit. 50 Fed. Reg. at 27,898. *See also* 67 Fed. Reg. at 22,209-18; 64 Fed. Reg. at 40,799.

The definitions of "excessive concentration" in § 51.100(kk)(2) and (3) impose less rigorous demonstration requirements than § 51.100(kk)(1) and only apply to *within-formula* modeling demonstrations. Thus, MSCC's assertions notwithstanding, they were not available to MSCC. EPA differentiated the required fluid modeling showings in response to *Sierra Club*, 719 F.2d at 446-450, 456-460, and to "Congress's expectation" that credit for stacks above formula height be granted "only in rare cases.'" *NRDC*, 838 F.2d at 1238 (citing 50 Fed. Reg. 27,898).

Section 51.100(jj), also relevant to GEP determinations, defines "nearby" structures and terrain for purposes of formula calculations and fluid modeling. EPA interprets "nearby" to mean structures separate from the stack. 67 Fed. Reg. at 22,223. As EPA explained in its SIP action, a contrary interpretation would allow a source to justify GEP stack height for a new stack based on the dimensions of, or downwash created by, the stack itself; *i.e.*, the new

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stack would be self-justifying, contrary to § 7423 and the regulations' intent. 67 Fed. Reg. at 22,228.

B. Montana's Actions

To set SIP limits, Montana had to first determine GEP stack height at area sources. With MSCC, this proved contentious. Following EPA's SIP Call, MSCC began demanding that Montana grant GEP credit for the full height of MSCC's yet-to-be-built 100-meter stack, and MSCC pressed the issue in various letters to the State. *See, e.g.,* SER 169, 175, 176, 187, 191, 192, 193, 194, and 195. Montana rejected MSCC's theories and maintained that 65 meters was GEP stack height. SER 179-85. Montana specifically rejected MSCC's demand that its stack's support structure be considered a "nearby" structure, and concluded that under a "common sense" application of the rules, the stack support structure was not "nearby" but "part of the stack itself." SER 181. Montana deemed MSCC's argument "inherently circular" and "an attempt to circumvent the stack height regulations." SER 212.[37]

The dispute continued into 1995, when Montana, having reached agreement on SIP limits with every other source in the area, proposed limits for MSCC based on *de minimis* stack height credit. SER 188-90. MSCC responded by commencing administrative litigation. Montana subsequently settled with MSCC,

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[37] In response to MSCC's musings about moving its stack closer to a neighbor's buildings or erecting new structures near the stack to increase stack height credit, Montana stated: "The apparent interest by MSCC in additional buildings and equipment as related to stack height credits is troublesome." SER 186.

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granting above-formula GEP stack height credit of 97.5 meters based on fluid modeling by MSCC. SER 162-68. While MSCC had posited several bases for GEP credit of at least 97.5 meters, Montana approved only MSCC's fluid modeling demonstration under 40 C.F.R. § 51.100(kk)(1) for above-formula stack height credit. SER 89, 90-92. Montana then applied the 97.5-meter value in dispersion modeling to calculate SIP limits.

C. EPA's Action

In granting a credit of 97.5 meters, Montana misapplied EPA's stack height regulations, leaving EPA no choice but to disapprove MSCC's resultant limits and the attainment demonstration. 64 Fed. Reg. at 40,799-800. Montana accepted fluid modeling that (1) failed to show an exceedance of the NAAQS, which § 51.100(kk)(1) requires,[38] and (2) modeled downwash from the stack support structure, contravening EPA's interpretation that stack-caused downwash cannot be used to justify a stack's GEP credit.[39] Also, contrary to § 51.100(kk)(1)'s requirements, Montana failed to impose the NSPS emission limit as a condition of granting MSCC above-formula stack height credit. *Id.*, 67 Fed. Reg. at 22,209-38.

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[38] MSCC's above-formula fluid modeling showed an exceedance of a lower Montana-only standard, not the national standard (*i.e.*, the NAAQS).

[39] The State agreed that "the support cylinder is . . . not a creditable nearby structure," but, erroneously, did not insist MSCC re-run the fluid model. SER 212-13.

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D. MSCC's Attacks On EPA's Application Of § 7423 And EPA's Regulations Lack Merit

1. EPA Appropriately Rejected Montana's Reliance on the State-Only Standard to Determine Stack Height Credit.

MSCC argues that the State's reliance on the Montana Ambient Air Quality Standard ("MAAQS") – rather than the national standard – was sufficient to determine MSCC's stack height credit. That approach circumvents § 7423's fundamental purpose, and EPA reasonably rejected it.

As required, Montana insisted that MSCC make an above-formula fluid modeling demonstration, in which excessive concentrations are shown only if modeling produces an exceedance of an "ambient air quality standard." 40 C.F.R. § 51.100(kk)(1). However, at a stack height of 97.5 meters, MSCC's modeling did not produce an exceedance of the applicable annual SO_2 NAAQS (80 micrograms/cubic meter (0.03 ppm), per 40 C.F.R. § 50.4(a)), but instead produced only an exceedance of a significantly lower concentration equivalent to Montana's State-only annual SO_2 standard (52 micrograms/cubic meter (0.02 ppm)). SER 90-92.

Montana's standard has no relevance to the SIP. The SIP did not demonstrate attainment of the MAAQS (SER 225),[40] and EPA and the public have

[40] Table 11 (SER 225) reflects a modeled value of 69.05 micrograms/cubic meter – above the 52 micrograms/cubic meter annual MAAQS.

no means to enforce it through the SIP or otherwise.[41] As applied here, Montana's standard was just a straw man enabling MSCC to claim eligibility for above-formula credit. 67 Fed. Reg. at 22,222. If MSCC's logic prevailed, states would be free to establish state-only ambient air quality standards as low as zero, but unenforceable through their SIPs, simply to permit local sources to justify above-formula stack height credit and dispersion in lieu of controls. Use of the NAAQS, on the other hand, properly restricts above-formula credit to cases where the downwash avoided is at levels specified by "act of Congress" or regulation as possessing health or welfare significance. 50 Fed. Reg. at 27,898. As noted in *Sierra Club*, EPA is required to make certain that "the standard it derives in fact fairly approximates the stack height level needed to protect local health and welfare; in doing so, moreover, it should err on the side of reducing stack height, in keeping with Congress's command that credit for stack heights above [formula] height be granted with 'utmost caution.'" *Sierra Club*, 719 F.2d at 450.

Hence, the record for the stack height regulations reflects EPA's intention that the NAAQS, not some other standard, represents the relevant benchmark. SER 2-20. EPA rejected suggestions that lower concentrations could be used in above-formula demonstrations: "The use of some fraction of the NAAQS, however, is not responsive to the health and welfare concerns articulated by the [*Sierra Club*] court." SER 13. *See also* SER 9, 20. Of particular significance, the

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[41] The Montana standard did not even apply in Billings in 1996, when Montana adopted SIP limits for MSCC. 67 Fed. Reg. at 22,221.

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stack height regulations' preamble leaves no doubt about EPA's interpretation, *i.e.*, that a source can "only" get above-formula stack height credit in SIPs to the extent that it is needed to avoid a "NAAQS exceedance." 50 Fed. Reg. at 27,898; *id.* at 27,894, 27,899 (same).

Because the regulatory term "ambient air quality standard" is undefined and arguably susceptible to more than one reading, EPA's interpretation of its own regulation is "controlling" unless "plainly erroneous or inconsistent with the regulation." *Bassiri v. Xerox Corp.*, 463 F.3d 927, 931 (9th Cir. 2006).[42] *See also Thomas Jefferson University v. Shalala*, 512 U.S. 504, 512 (1994) (deference is even more warranted when "the regulation concerns a complex and highly technical regulatory program in which the identification and classification of relevant criteria necessarily require significant expertise and entail the exercise of judgment grounded in policy concerns.") (citation and internal quotation marks omitted).

EPA reasonably applied its longstanding interpretation of "ambient air quality standard" to reject MSCC's above-formula showing and disapprove

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[42] Even if the Court were to conclude that the regulation's plain language encompasses a state ambient air quality standard, this Court has recognized that such plain meaning should not control if "clearly expressed [administrative] intent is to the contrary or [if] such plain meaning would lead to absurd results" and "some indication of the regulatory intent" is referenced "in the published notices that accompanied the rulemaking process." *Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1097-98 (9th Cir. 2007) (citation omitted). EPA clearly expressed its intent in the preamble to the stack height regulations, and use of a lower state standard in this context would lead to absurd results.

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MSCC's limits and the attainment demonstration.

2. EPA Reasonably Interpreted its Regulations to Require MSCC to Meet the NSPS Limit Used in Fluid Modeling.

According to MSCC (Br. 47), EPA's regulations do not "suggest" that to obtain GEP stack height credit, an existing source "must meet the NSPS standard." EPA disagrees. 40 C.F.R. § 51.100(kk)(1) specifies that the NSPS is "the allowable emission rate" to be used in the fluid modeling demonstration, unless the source demonstrates that the rate is "infeasible."

"Allowable emissions" is a term of art EPA uses to denote an enforceable emission limit, not a mere assumed emission rate that may be disregarded later. 67 Fed. Reg. at 22,210; SER 160. *See also* 40 C.F.R. § 51.100(hh)(2)(ii)(B)-(C) and (v), issued as part of the stack height regulations. MSCC's reading would render the word "allowable" meaningless. Further, § 51.100(kk)(1) allows a source to demonstrate that the NSPS emission rate is infeasible. EPA had no reason to include this provision if it intended the NSPS rate to be a mere assumption in fluid modeling that a source need never meet. It would defy common sense, and *Sierra Club's* directive, to have a source demonstrate a "need" for above-formula stack height credit to avoid harmful levels of pollution at an NSPS emission rate but then assign the source a SIP limit a magnitude of order higher than the NSPS, which is what Montana did here. *See, e.g.*, 67 Fed. Reg. at 22,212; SER 161.

Even if this Court were to conclude that EPA's regulations are ambiguous, it should find EPA's interpretation controlling, particularly because EPA clearly

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expressed that interpretation in the preamble to its stack height regulations.[43] *See* 50 Fed. Reg. at 27,898, affirming that "the regulations require sources seeking credit above the formula to be well-controlled as a condition of obtaining such credit." EPA left no doubt what it meant by "well-controlled." In cases where "greater than formula height may be needed to prevent excessive concentrations, sources should first attempt to eliminate such concentrations by reducing emissions." Thus, "the emission rate to be met by a source seeking to conduct a demonstration to justify [above-formula stack height credit]" must be "equivalent to the emission rate prescribed by NSPS applicable to the industrial source category." *Id. See also id.* at 27,905. EPA's interpretation is neither plainly erroneous nor inconsistent with the regulation, but instead effectuates Congress's admonition that above-formula credit be granted rarely and with utmost caution. *NRDC*, 838 F.2d at 1242; *Sierra Club*, 719 F.2d at 450.

MSCC's argument (Br. 47) that *NRDC* rejected EPA's "control first" approach is erroneous. *NRDC* specifically held that EPA had discretion to impose "control-first" in the above-formula context even though § 7423 did not require it: "We find the attempt of industry to bar control-first here no stronger than NRDC's

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[43] EPA is entitled to deference in this context. *See Boose v. Tri-County Metro. Transp. Dist.*, 587 F.3d 997, 1005 n.13 (9th Cir. 2009) (that an agency's interpretation is contained in an informal statement such as a preamble "does not vitiate the level of deference we accord it."). *See also Las Vegas v. FAA*, 570 F.3d 1109, 1117-18 (9th Cir. 2009) (when regulation is ambiguous, "we consult the preamble of the final rule as evidence of context or intent of the agency promulgating the regulations.")

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effort to require it in the within-formula context." *NRDC*, 838 F.2d at 1241; *see also* 67 Fed. Reg. at 22,212.

MSCC's assertion (Br. 48) that no source would seek above-formula credit if NSPS would apply no matter what, is a red herring. EPA did not expect sources to seek above-formula credit unless they would otherwise have to limit emissions to less than NSPS levels. 50 Fed. Reg. at 27,898-99; 67 Fed. Reg. at 22,217.

Nor did EPA accord ExxonMobil favorable treatment (Br. 48). Unlike MSCC, ExxonMobil conducted fluid modeling to justify *within-formula* stack height credit. 67 Fed. Reg. at 22,216. Thus, § 51.100(kk)(2) – not § 51.100(kk)(1) – applied, and the former does not require that a source be controlled to NSPS levels in order to receive increased stack height credit.

3. Montana and EPA Appropriately Rejected MSCC's GEP Theories.

MSCC asserts (Br. 41-45) that EPA was required to accept GEP theories under § 51.100(ii)(2) and (3) that Montana rejected and did not rely on in the SIP. If MSCC wanted to challenge Montana's judgment regarding MSCC's alternative GEP theories, its opportunity to do so was through the State's processes. For its part, EPA was only required to respond to Montana's SIP as submitted. *See, e.g., Union Elec. v. EPA*, 427 U.S. 246, 266-67 (1976). Nonetheless, EPA fully evaluated MSCC's State-rejected stack height arguments under § 51.100(ii)(2) and (3) and likewise rejected them. 67 Fed. Reg. at 22,223-38.

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MSCC argues (Br. 41) that formula height is 98.15 meters, based on the dimensions of the stack support structure.[44] Like the State, however, EPA concluded that using part of the stack in formula calculations is circular. *See* 67 Fed. Reg. at 22,223-29. The formula – H plus 1.5L – always yields a value that exceeds the height (H) of the relevant structure. Using MSCC's approach, sources could achieve any formula height desired simply by raising their stacks to the desired height, absent any real-world need to address pollutant downwash. Dispersion would always trump emissions controls, an absurd result contrary to congressional intent.

MSCC also argues (Br. 41) that in a 1994 letter, EPA viewed the support structure as a new "nearby structure" for formula purposes. But MSCC ignores that the letter rejected MSCC's formula calculation as "not technically supportable." ER 204. Further, while that early letter did indicate that MSCC could perform fluid modeling to attempt to justify GEP credit based on the support structure, EPA subsequently explained that the letter was issued without full consideration of regulatory requirements and was superseded by three following letters enunciating EPA's correct (and final) interpretation of its regulations. *See* 64 Fed. Reg. at 40,799-800; SER 132-34, 135-36, 98-100. As EPA explained, to the extent part of a stack creates downwash, a source must address that through

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[44] The support structure is much like the outer wall of any other stack. SER 197. It is a steel cylinder 310 feet (94.5 meters) tall and eight feet in diameter. SER 177.

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pollution controls, not greater GEP credit. 64 Fed. Reg. at 40,799.[45]

Thus, MSCC's suggestion (Br. 43-44) that "several testing approaches" (under 40 C.F.R. § 51.100(kk)(2) and (3)) were available to it is wrong. Because the support structure's dimensions could not be used to determine formula height, formula height was 47.8 meters.[46] Therefore, any height over *de minimis* height (65 meters) was above-formula, and MSCC's only avenue to justify such height was to meet § 51.100(kk)(1)'s fluid modeling requirements. 67 Fed. Reg. at 22,232. EPA reasonably rejected MSCC's attempt to use fluid modeling "demonstrations" under § 51.100(kk)(2) and (3) and, as explained above, MSCC and Montana did not comply with the requirements of § 51.100(kk)(1).

VI. EPA REASONABLY DISAPPROVED MONTANA'S ATTAINMENT DEMONSTRATION DUE TO LACK OF FLARE EMISSION LIMITS

EPA reasonably disapproved Montana's attainment demonstration due to the SIP's lack of emission limits on MSCC's flares corresponding to flare emissions rates upon which the demonstration relied. Any other approach by EPA

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[45] EPA's 1992 guidance related to stack height increases due to the siting of new, nearby structures (ER 206) is inapplicable to MSCC's stack because it was not "affected by the later construction of upwind obstacles" that "could . . . not have been anticipated." ER 207. Also, EPA's Stack Height TSD indicated that stacks and towers should not be considered in GEP stack height determinations at all. SER 23.

[46] MSCC states (Br. 46) that 98.15 meters is the only "formula height determination in the record," but, as noted, Montana determined (and MSCC initially agreed) that formula height was 47.8 meters.

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would have conflicted with §§ 7410(a)(2) and 7410(*l*),[47] and with the SIP requirements in 40 C.F.R. §§ 51.111-12 (control measures and demonstrations of adequacy), 51.210-212 (monitoring, reporting, testing/inspection/enforcement), and 51.281 (rules and regulations), which leave no doubt that SIPs need to include the limits assumed in the attainment demonstration, and measures to ensure enforceability of the limits. *See also* 67 Fed. Reg. 22,179-180. EPA's approach effectuates an important element of the SIP process – the federalization of state requirements needed for attainment, which enables EPA and citizen enforcement.

"Flaring" is a practice that provides for "process equipment to immediately release gases to a device (a flare)" for incineration. SER 216. Although sometimes used in emergencies, flaring routinely occurs in non-emergency situations or is used to bypass pollution control equipment. *Id.* This can result in unacceptable SO_2 releases and violate requirements that companies minimize emissions through good operating practices. *Id.* Sulfur recovery plants like MSCC can produce "very large uncontrolled releases" of SO_2, and one day's flaring "can easily release more SO_2 than is released in a single year" of permitted activity. SER 217.

Montana had found that routine flaring events, even if generally not large-scale, "happen quite frequently," which led it initially to set an emission limitation

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[47] Section 7410(a)(2)(A) requires SIPs to include "enforceable emissions limitations" as "necessary or appropriate to meet the applicable requirements of this chapter." Section 7410(*l*) prohibits EPA from approving any SIP that "would interfere with any applicable requirement concerning attainment."

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for such emissions of 75lbs SO_2/3hrs. Testimony of Bob Raisch, Montana Air Quality Division (SER 71).[48] Mr. Raisch testified that non-routine flaring – such as occurs during malfunctions – can cause "large amounts" of SO_2 emissions:

> In fact, we did some dispersion modeling to determine what the impact of that might be, and it appears that flaring large amounts of gases at these flares could result in ambient concentrations of as much as four or five times the National Ambient Air Quality Standards, so it is a real concern to us.

SER 71-72. Montana explained that since routine flare emissions occur on a "continuous basis," it included the emissions in its compliance modeling demonstration. SER 74.

Montana's 1996 SIP submittal "contained flare-related requirements, including emission limitations, and emissions minimization and reporting requirements." SER 203. After EPA noted inadequacies in these requirements – particularly regarding startup/shutdown flaring – Montana revised its submittal but failed to reach agreement with EPA. *Id.*

> The State agrees with EPA that the SIP is incomplete without enforceable emission limitations applicable to flares, and that such limitations should correspond to the emission rates used in the attainment demonstrations. However, after a significant effort to address the issue, the State was unable to find a workable solution that would meet EPA's concerns.

SER 202. In its 1998 SIP submittal, Montana removed reference to flare emission limitations but continued to rely on limited flare emissions rates in its attainment demonstration.

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[48] That amount subsequently increased to 150 lbs/3-hours.

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So, although Montana (1) modeled flare emissions assuming they would be limited to 150 lbs SO_2 per 3-hour period, and (2) adopted "Additional State Requirements" ("State-only provisions") including flare emission limitations and reporting requirements for the four sources (including MSCC) that used flaring, Montana's SIP included no corresponding emission limitations for EPA to approve. Such limitations were enforceable only by the State and could not be relied on by EPA to support approval of the attainment demonstration. Since restricted flare emissions were part of Montana's attainment demonstration, EPA reasonably decided the SIP should contain enforceable limitations for these emission points, and therefore disapproved the demonstration. 67 Fed. Reg. at 22,171.

MSCC agrees (Br. 52) that Montana used a 150 lbs/3 hour emission rate assumption for each flare in its attainment demonstration, but contends Montana "never intended to set emission limits on flares." Even assuming such "intent" is relevant, the record rebuts MSCC's contention. Montana agreed there should be enforceable emission limitations for flares. ER 367. *See also* SER 202 (State "agrees with EPA that the SIP is incomplete without enforceable emission limitations applicable to flares, and that such limitations should correspond to the emission rates used in the attainment demonstrations."); ER 296 (State's modeling included flare emissions, making it "more reflective of the actual case").

MSCC's contention (Br. 52) that Montana's use of a 150 lbs/3 hour flare emission rate assumption in its demonstration was "arbitrary" is also undermined

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by the record, which shows that Montana based that rate on area refineries' own estimates. SER 74. As Montana explained, it chose the assumed rate only after "much discussion and investigation." ER 296.

MSCC suggests EPA and Montana should have ignored flare emissions, which MSCC deems (Br. 56) not "material." EPA disagreed that the way to address flare emissions is to "sweep them under the carpet." 67 Fed. Reg. at 22,181.

> The State was concerned enough about these emissions that it chose to regulate them at the State level and considered them in the attainment demonstration. We believe that turning our back on an issue simply because it is difficult to address is not appropriate under the Act.

Id. Montana identified the flares as an attainment issue, and EPA reasonably concluded that if the flares lack enforceable limitations, NAAQS attainment will not be assured. *Id.*

Other record documents further contradict MSCC's suggestion that flare emissions are inconsequential. Responding to MSCC's comments, EPA noted that Montana had modeled emissions from flares at 150 lbs SO_2/3-hours, which equates to 219 tons (438,000 pounds) of SO_2 per year per source. EPA explained that this level was above 100 tons/year, the regulatory threshold that triggers major source permitting requirements in most instances. 67 Fed, Reg. 22,182.

Further, in its attainment demonstration, Montana assumed each refinery (including MSCC) had one flare; the cumulative flare emissions from all of these sources amounted to 876 tons (1,752,000 pounds) of SO_2 per year. EPA also

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found a "real possibility" that flares emit even more pollution than the modeled level. *See* 67 Fed. Reg. at 22,182.

MSCC cites (Br. 54) a State letter for the proposition that it is neither feasible nor desirable to regulate flares through emission limitations. However, as EPA stated, it was "not convinced that measuring flow and content of the flare is impossible" and was evaluating "potential methods for measuring flare flow and content in preparation of" any needed remedial FIP. 67 Fed. Reg. at 22,182. EPA disagreed that flaring is "always essential or that no reasonable alternative exists." *See id.* at 22,181 (other facilities, either because of enforcement action or company decision, reduce flaring through better operation and maintenance procedures).[49]

MSCC complains that other implementation plans do not contain short-term numerical emission limits on flares, a claim that even if true is not persuasive.

> We believe that when an area has been determined to not be attaining the NAAQS, it is reasonable to apply *extra* measures to assure that the area attains and maintains the NAAQS. Since the State identified

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[49] MSCC asserts (Br. 53) that although EPA advised that it could not approve Montana's SIP because it imposed a "work practice standard" during startup, shutdown and malfunction episodes rather than a fixed numerical emissions limit, EPA's New Source Performance Standards ("NSPS") for flares – which constitute the "best demonstrated technology" for new plants – exempted flares from numerical limits during such episodes and applied a "work practice" standard. (Citing 72 Fed. Reg. 27,178, 27,194 (May 14, 2007)). Leaving aside that the cited proposal notice post-dates this challenged rulemaking, MSCC ignores that Montana's attainment demonstration relied on a specified emission rate for flares that Montana failed to include in the SIP at all. The NSPS, which are not intended to be a substitute for SIPs, are not relevant to this issue.

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> a concern with flare emissions and included the emissions in the attainment demonstration, we believe it is reasonable to make restrictions on flares federally enforceable.

67 Fed. Reg. at 22,181 (emphasis added).[50] EPA's disapproval of Montana's omission of flare provisions in the SIP was reasonable.

VII. EPA REASONABLY DISAPPROVED MONTANA'S EMISSION LIMITS FOR MSCC'S 30-METER AND AUXILIARY VENT STACKS

In addition to its 100-meter tall stack, MSCC has five auxiliary vent stacks and a 30-meter stack. All discharge emissions from MSCC boilers and heaters. 67 Fed. Reg. at 22,169, 22,202-04.

A. MSCC's Auxiliary Vent Stacks

EPA disapproved the SIP's auxiliary vent stacks emission limitation for MSCC – a combined SO_2 limit of 12 lbs/3 hour period (64 Fed. Reg. at 40,800) – because it (1) did not restrict the sulfur content of the fuel burned in the boilers and heaters when they are exhausting through the auxiliary vent stacks, and (2) lacked a monitoring method that would make the limitation practically enforceable. Without sulfur restrictions and a monitoring method, EPA found, emission limitation exceedances could go undetected. 67 Fed. Reg. at 22,170. EPA also disapproved Montana's attainment demonstration because it relied on

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[50] State permit writers have imposed numeric SO_2 emission limits on flares as emission points, rebutting the notion that flares cannot be regulated with numeric limits in the same way as stack emissions. *See, e.g., St. Bernard Citizens v. Chalmette Refining,* 399 F. Supp. 2d 726, 737 (E.D. La. 2005) (refinery found liable for violating permit limit on flaring of 2.13 lbs of SO_2 per hour).

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the disapproved auxiliary vent stacks limitation. *Id.* at 22,171.

MSCC argues (Br. 58) that SO_2 emissions from its boilers and heaters are "extremely small" and have no "practical effect" on air quality, and that it is therefore "beyond unreasonable for EPA to disapprove a SIP based solely on the Agency's desire for more stringent monitoring on such small sources."

However, as EPA stated in response to MSCC's comments, EPA must assume that emission limitations on the auxiliary vent stacks, like the SIP's other emission limitations, were established to assure the NAAQS are attained and maintained. Montana included the auxiliary vent stack limitations in its SIP as an enforceable control strategy and EPA properly insisted that those limitations be enforceable. 67 Fed. Reg. at 22,202.

In response to MSCC's comment that the potential to violate the auxiliary vent stack emission limitation if MSCC burns fuel high in hydrogen sulfide is not unique to MSCC, EPA agreed but added that other sources controlled by the SIP have continuous emissions monitors or other methods to measure the sulfur content of the fuel they burn. "Therefore, for the other sources there is a better tool to assess whether emission limitations are being met." 67 Fed. Reg. at 22,203.[51] EPA reasonably disapproved the auxiliary vent stacks emission limitation and the attainment demonstration because the SIP did not restrict the sulfur content in the

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[51] EPA added that the SIP required MSCC to submit quarterly reports, estimating 3-hour and 24-hour SO_2 emissions from its auxiliary vent stacks (SER 124-25), so MSCC would already need to know the hydrogen sulfide concentration of fuel burned in its boilers and heaters.

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fuel burned in the boilers and heaters when they exhaust through the auxiliary vent stacks and lacked a monitoring method that would make the limitation practically enforceable.

B. MSCC's 30-Meter Stack

EPA limitedly approved MSCC's 30-meter stack's SO_2 emission limitation (12 lbs/3 hour period) but also limitedly disapproved it because it neither adequately limited the amount of hydrogen sulfide in fuel burned in the boilers and heaters that exhaust from that stack, nor provided a method for measuring that fuel's hydrogen sulfide concentrations. 67 Fed. Reg. at 22,171, 22,205. SER 117.

Again, MSCC argues (Br. 58) that SO_2 emissions from its 30-meter stack are relatively small, have little "practical effect" on air quality, and do not require stringent monitoring. EPA's rebuttal is the same – it must assume that the emission limitation on the 30-meter stack was established by Montana to assure compliance with the NAAQS, and if limitations are exceeded that objective is in jeopardy. EPA chose not to second-guess Montana's decision to include the 30-meter stack limitation in its SIP as a control strategy. 67 Fed. Reg. at 22,204. Again, EPA acted reasonably.

CONCLUSION

MSCC's Petition should be denied.

Respectfully submitted November 12, 2010: /s/ *Martin F. McDermott*
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CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) and the typeface requirements of Rule 32(a)(5) & 32(a)(6) because it is proportionally spaced, has a 14-point font Times New Roman typeface, and contains 13,860 words, as counted by Corel WordPerfect X3, excluding the portions of the brief exempted by Fed. R. App. P.32(a)(7)(B)(iii).

DATED: November 12, 2010

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CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing RESPONDENT'S BRIEF and STATUTORY AND REGULATORY ADDENDUM with the Clerk of Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on November 12, 2010. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

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