

MEMORANDUM

TO: Docket for rulemaking, "State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction" (EPA-HQ-OAR-2012-0322)

DATE: February 4, 2013

SUBJECT: Statutory, Regulatory, and Policy Context for this Rulemaking

This memorandum summarizes the legal and administrative context for the proposed action by the U.S. Environmental Protection Agency (EPA) responding to the Sierra Club's Petition for Rulemaking (Petition) concerning state implementation plan (SIP) issues related to excess emissions during periods of startup, shutdown, and malfunction (SSM).

**Statutory Requirements Concerning SIPs Relevant to this Action**

Several key statutory provisions of the Clean Air Act (CAA) are relevant to the EPA's evaluation of the Petition. These provisions relate generally to the basic legal requirements for the content of SIPs, the authority and responsibility of states to develop such SIPs, and the EPA's authority and responsibility to review and approve SIP submissions in the first instance, as well as the EPA's authority to require improvements to SIPs if the EPA later determines that to be necessary for a SIP to meet CAA requirements. In addition, the Petition raised issues that pertain to enforcement of provisions in a SIP. The enforcement issues relate generally to what constitutes a violation of an emission limitation in a SIP, who may seek to enforce against a source for that violation, and whether the violator should be subject to monetary penalties as well as other forms of judicial relief for that violation.

Consistent with the principle of cooperative federalism, the CAA provides authority to, and imposes responsibility on, all states and the EPA to meet the objectives and requirements of the statute. CAA section 110(a)(1) requires each state to have a SIP that provides for "the implementation, maintenance, and enforcement of" the National Ambient Air Quality Standards (NAAQS) within the state. The state is also obligated to update that SIP from time to time, such as through the infrastructure SIP submissions required within 3 years of the promulgation of a new or revised NAAQS. CAA section 110(a)(2) requires that "[e]ach such plan shall" meet the requirements listed in sections 110(a)(2)(A) through (M).<sup>1</sup> Under section 110(a)(2)(H)(i), states

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<sup>1</sup> The EPA notes that SIP submissions must meet the applicable requirements of CAA section 110(a)(2), and different types of SIP submissions may trigger different requirements. In general, however, all SIP submissions that contain or reference emission controls must meet the requirements of section 110(a)(2)(A) with respect to enforceable emission limitations, as must existing SIPs as a whole.

have a general statutory duty to revise their SIPs “from time to time as may be necessary,” in order to update them, and under section 110(a)(2)(H)(ii), states have a specific duty to do so in the event that the EPA makes a finding of substantial inadequacy concerning attainment of the NAAQS or any other requirements of the CAA.

Section 107(a) of the CAA provides states with both the authority and the primary responsibility to develop SIPs that meet applicable statutory and regulatory requirements for attaining, maintaining, and enforcing the NAAQS.<sup>2</sup> States have discretion in formulating their SIPs, and the EPA is required to approve a SIP submission that provides for the timely attainment and maintenance of the NAAQS and that satisfies the other applicable requirements of CAA section 110(a)(2) or any other CAA section relevant to the SIP submission.<sup>3</sup> As the Supreme Court has stated:

The Act gives the Agency no authority to question the wisdom of a State's choices of emission limitations if they are part of a plan which satisfies the standards of §110(a)(2). . . . Thus, so long as the ultimate effect of a State's choice of emission limitations is compliance with the national standards for ambient air, the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation.<sup>4</sup>

However, the EPA has both the authority and the responsibility to assess whether a SIP submission in fact meets applicable CAA and regulatory requirements. CAA section 110(a)(2) provides that each SIP “shall” meet various requirements that address a range of topics including legal authority, resources, and substantive content. Under CAA section 110(k), the EPA is required to determine whether or not a SIP submission meets all applicable requirements, and the EPA is authorized to approve, disapprove, partially approve and partially disapprove, or conditionally approve a given SIP submission, as appropriate. When a SIP submission does not meet the applicable requirements, the EPA is obligated to disapprove it.<sup>5</sup>

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<sup>2</sup> See *Am. Lung Ass'n v. EPA*, 134 F.3d 388 (D.C. Cir. 1998); *Sierra Club v. EPA*, 356 F.3d 296 (2d Cir. 2004); *Latino Issues Forum v. EPA*, 558 F.3d 936 (9th Cir. 2009); *Natural Res. Def. Council v. EPA*, 638 F.3d 1183 (9th Cir. 2011).

<sup>3</sup> See *Union Elec. Co. v. EPA*, 427 U.S. 246, 250 (1976); *Train v. Natural Res. Def. Council*, 421 U.S. 60, 79 (1975). The EPA notes that these decisions only addressed certain types of SIP submissions and that they predate substantial amendments to the CAA in 1977 and 1990 that dramatically altered and expanded the requirements of the CAA. Nevertheless, they reflect the fundamental principle that states are accorded broad discretion to develop plans to meet CAA objectives, provided that they also meet all applicable CAA requirements.

<sup>4</sup> See *Train*, 421 U.S. at 79. See also *Navistar Int'l Transp. Corp. v. EPA*, 941 F.2d 1339 (6th Cir. 1991) (quoting *Train*); *Fla. Power & Light Co. v. Costle*, 650 F.2d 579, 587 (5th Cir. 1981) (“The great flexibility accorded the states under the Clean Air Act is . . . illustrated by the sharply contrasting, narrow role to be played by EPA.”); *Michigan v. EPA*, 268 F.3d 1075, 1083 (D.C. Cir. 2001) (the EPA’s “overarching role is in setting standards, not in implementation”).

<sup>5</sup> See *Mont. Sulphur & Chem. Co. v. EPA*, 666 F.3d 1174, 1180 (9th Cir. 2012) (“The Clean Air Act gives the EPA significant national oversight power over air quality standards, to be exercised pursuant to statutory specifications, and provides the EPA with regulatory discretion in key respects relevant to SIP calls and determinations about the attainment of NAAQS.”); *Mich. Dep’t of Env’tl. Quality v. Browner*, 230 F.3d 181 (6th Cir. 2000) (“Although states

In the case of revisions to an existing SIP, CAA sections 110(l) and 193 impose additional requirements upon EPA when evaluating a SIP submission. The former section prohibits the EPA from approving a revision if it “would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement of [the CAA].”<sup>6</sup> Section 193 prohibits SIP revisions that would affect control measures in effect prior to the 1990 Amendments to the CAA in any area that is designated nonattainment for any NAAQS, unless “the modification insures equivalent or greater emission reductions of such air pollutant.” Thus, both CAA section 110(l) and section 193 add to the EPA’s authority and responsibility in evaluating SIP submissions for compliance with CAA requirements.

In addition to providing the authority to evaluate and approve SIP submissions in the first instance, the CAA also provides the EPA with explicit authority to address problems in existing SIPs. Most relevant to this action, CAA section 110(k)(5) provides the EPA with the authority to issue a “SIP call” whenever it finds that a state’s existing SIP is “substantially inadequate” to attain or maintain the NAAQS, to mitigate adequately interstate pollutant transport under CAA sections 176A or 184, “or otherwise to comply with any requirement of” the CAA. The existence of section 110(k)(5) clearly reflects that Congress authorized the EPA to take action to assure that each SIP meets applicable requirements, and to do so even after a prior approval of that same provision by the EPA. The EPA has recently used this authority specifically to rectify SIP deficiencies, including those related to excess emissions during periods of startup, shutdown, and malfunction.<sup>7,8</sup> The EPA’s authority under CAA section 110(k)(5) is discussed in more detail in section VIII.A of the preamble to this proposed action.

The Petition also implicated a number of core CAA provisions that relate to specific required contents of SIPs, especially sections 110(a)(2)(A) and 110(a)(2)(C). Most relevant to this proposed action, CAA section 110(a)(2)(A) requires that each state’s SIP shall:

include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and

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are given broad authority to design programs, the EPA has the final authority to determine whether a SIP meets the requirements of the CAA.”); *Luminant Generation Co. v. EPA*, 699 F.3d 427 (5th Cir. 2012) (upholding the EPA’s approval of some SIP revisions and disapproval of others with respect to treatment of excess emissions during SSM events).

<sup>6</sup> See, e.g., *Luminant Generation Co. v. EPA*, 699 F.3d 427 (5th Cir. 2012) (upholding the EPA’s authority under CAA section 110(l) to disapprove a SIP submission because it would interfere with an applicable requirement of the CAA).

<sup>7</sup> See, e.g., “Action to Ensure Authority To Issue Permits Under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions; Finding of Substantial Inadequacy and SIP Call; Final Rule,” 75 FR 77698 (Dec. 13, 2010). In that action, EPA used authority under CAA section 110(k)(5) to find the SIPs of 13 states substantially inadequate to meet CAA requirements with respect to PSD requirements for GHG-emitting sources. Thus, EPA promulgated a SIP call to request that states rectify this deficiency, even though EPA had previously determined their SIPs to meet CAA requirements.

<sup>8</sup> See “Finding of Substantial Inadequacy of Implementation Plan; Call for Utah State Implementation Plan Revision,” 74 FR 21639 (Apr. 18, 2011). The EPA’s SIP call action was challenged and was upheld by the court in *US Magnesium, LLC v. EPA*, 690 F.3d 1157 (10th Cir. 2012).

auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act....

The term “emission limitation” is defined in CAA section 302(k) as:

a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants *on a continuous basis*, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this Act.

(emphasis added).

Legislative history for CAA section 302(k) suggests that Congress was concerned that emission limitations in SIPs provide continuous emissions reductions:

By defining the terms “emission limitation,” “emission standard,” and “standard of performance,” the committee has made clear that constant or continuous means of reducing emissions must be used to meet these requirements. By the same token, intermittent or supplemental controls or other temporary, periodic, or limited systems of control would not be permitted as a final means of compliance.<sup>9</sup>

Recent court decisions have emphasized the significance of the explicit requirement for emission limitations that apply on a “continuous” basis as a plain reading of the CAA.<sup>10</sup>

To meet various CAA requirements, these enforceable “emission limitations” must be adopted by states for different purposes. For example, states must have SIP provisions designed to meet nonattainment plan requirements under CAA section 110(a)(2)(I) and the more detailed statutory provisions in title I, part D, of the CAA. For this particular purpose, SIPs must include emission limitations as needed to provide for attainment of the NAAQS in an area designated nonattainment as expeditiously as practicable. These continuous emission limitations, in turn, provide the basis for other important required components of nonattainment area SIPs, such as accurate emissions inventories and reliable modeling demonstrations.

The Petition also raised issues related to the protection of prevention of significant deterioration (PSD) increments, as required pursuant to title I, part C, of the CAA. CAA section 110(a)(2)(C)

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<sup>9</sup> See H.R. Rep. 95-294, at 92 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1170.

<sup>10</sup> See, e.g., *Sierra Club v. Johnson*, 551 F.3d 1019 (D.C. Cir. 2008), *cert. denied*, *Am. Chemistry Council v. Sierra Club*, 130 S. Ct. 1735 (2010) (holding that the EPA itself is not authorized to issue emission limitations that do not apply continuously given the definition in CAA section 302(k) in conjunction with CAA section 112); *see also US Magnesium, LLC v. EPA*, 690 F.3d 1157 (10th Cir. 2012) (rejecting a challenge that the EPA's prior position with respect to the continuous compliance requirement of CAA section 302(k) in its own regulations rendered its SIP call to a state for deficient SIP provisions arbitrary and capricious).

requires that the state include a PSD program to meet CAA requirements for attainment areas in its SIP:

Each implementation plan . . . shall . . . include a program to provide for . . . regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that [NAAQS] are achieved, including a permit program as required in . . . part C.

In addition, CAA section 161 provides that:

Each applicable implementation plan shall contain emission limitations and such other measures as may be necessary, as determined under regulations promulgated under this part [C], to prevent significant deterioration of air quality for such region . . . designated . . . as attainment or unclassifiable.

Under CAA section 163, each SIP is required to contain measures assuring that sulfur dioxide and particulate matter concentrations do not exceed designated maximum allowable increases over baseline concentrations. These maximum allowable increases are known as PSD increments. Under CAA section 166, the EPA is authorized to promulgate regulations for other pollutants that include “specific numerical measures against which permit applications may be evaluated,” and such measures may include increments. Thus, applicable EPA regulations require states to include in their SIPs emission limitations and such other measures as may be necessary in attainment areas to assure protection of PSD increments.<sup>11</sup>

The PSD program requires new and modified major stationary sources to obtain a permit.<sup>12</sup> Such a PSD permit must contain emission limitations that constitute best available control technology for each pollutant subject to regulation.<sup>13</sup> In addition, however, a PSD permit must contain permit terms and conditions to ensure that the source will not cause or contribute to a violation of any increment or NAAQS.<sup>14</sup> These terms and conditions may include emission limitations applicable to the source, as necessary to protect the increments. Such emission limitations must meet the statutory definition of that term in CAA section 302(k).

The EPA's longstanding approach to excess emissions in the PSD program is reflected in a 1993 document titled, “Automatic or Blanket Exemptions for Excess Emissions During Startup and Shutdowns under PSD” (the “Rasnic Memo”).<sup>15</sup> The Rasnic Memo explained that the PSD program is part of the SIP, and “that even in states where the PSD program is not SIP approved,

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<sup>11</sup> See 40 CFR 51.166(c).

<sup>12</sup> CAA section 165(a)(1); 40 CFR 51.166(a)(7)(iii).

<sup>13</sup> CAA section 165(a)(4); 40 CFR 51.166(j).

<sup>14</sup> CAA section 165(a)(3); 40 CFR 51.166(k)(1).

<sup>15</sup> This memorandum was sent by John B. Rasnic, Director, Stationary Source Compliance Division, Office of Air Quality Planning and Standards, to Linda M. Murphy, Director, Air, Pesticides and Toxics Management Division, Region 1, on Jan. 28, 1993. The memorandum can be found in the docket for this rulemaking.

the emissions limits are established to protect increments and the [NAAQS].” The EPA has long noted that the requirements for the PSD program include the same statutory obligation for emission limitations to be continuous and thus to bar automatic exemptions, in accordance with CAA sections 110(a)(2)(A) and 302(k), as well as section 169(3).<sup>16</sup>

Important questions related to enforcement of SIP provisions also pervade the Petition. In particular, the statutory authority and discretion of courts under CAA section 113(b) to assess monetary penalties is a crucial issue. That section provides, in relevant part:

Any action under this subsection may be brought in the district court of the United States for the district in which the violation is alleged to have occurred, or is occurring, or in which the defendant resides, or where the defendant's principal place of business is located, and such court shall have jurisdiction to restrain such violation, to require compliance, *to assess such civil penalty*, to collect any fees owed the United States under this Act (other than title II) and any noncompliance assessment and nonpayment penalty owed under section 120, and to award any other appropriate relief.

(emphasis added). Thus, this provision addresses both the jurisdiction of the court to hear the case and the types of relief that the court may decide to mete out for violations, as appropriate.

With respect to the court's discretion whether to assess a monetary penalty, and if so how large a penalty, CAA section 113(e) includes certain statutory criteria. That section provides, in relevant part:

In determining the amount of any penalty to be assessed under [section 113 or section 304 of the CAA], the Administrator or the court, as appropriate, shall take into consideration (in addition to such other factors as justice may require) the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence . . . , payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, and the seriousness of the violation.

This provision provides direction from Congress on types of considerations that the EPA and courts should weigh in determining penalties for violations of emission limitations in SIPs. As discussed in section IV.A of the preamble to this proposed action, a core question raised by the Petition is whether a court may assess any monetary penalties under CAA section 113 in an enforcement proceeding if the violator has met the requirements of an affirmative defense

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<sup>16</sup> See, e.g., *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 174–181 (EAB 2006) (describing and applying the EPA's interpretation of the CAA to bar automatic exemptions from emission limitations in PSD permits because the PSD program is ambient-based and designed to protect increments and the NAAQS).

provision in the SIP that the EPA has previously approved as consistent with the requirements of the CAA.<sup>17</sup>

Finally, the Petition raised other questions related to effective enforcement of SIPs pursuant to CAA section 304. This section, commonly referred to as the “citizen suit” provision, creates a cause of action for citizens to seek to enforce provisions of a SIP against a violating source in federal court. A core principle of the CAA is that by taking action to approve emission limitations into a SIP, the EPA thereby makes those emission limitations a federally enforceable component of the SIP that the state, the EPA, or citizens can thereafter enforce in the event of alleged violations. For citizens, this authority to enforce the requirements of the SIP arises through the citizen-suit mechanism of section 304. As an organization representing citizens, the Petitioner has requested that the EPA reevaluate both: (i) aspects of its own SSM Policy providing guidance on SIP provisions consistent with the CAA; and (ii) existing SIP provisions in 39 states. The Petitioner alleged that with respect to both topics, citizens are being hindered in their ability to exercise their statutory right to enforce the requirements of the CAA in court and are thereby being hindered in obtaining the public health protections afforded by the CAA.

### **The EPA’s Policy on Excess Emissions During Startup, Shutdown, and Malfunction**

The Petition raised issues related to excess emissions from sources during periods of startup, shutdown, and malfunction, and to the correct approach to these excess emissions in SIPs. In this context, “excess emissions” are air emissions that exceed the otherwise applicable emission limitations in a SIP. In other words, these excess emissions are violations of such emission limitations. The question of how to address excess emissions correctly during startup, shutdown, and malfunction events has posed a challenge since the inception of the SIP program in the 1970s. The primary objective of state and federal regulators is to ensure that sources of emissions are subject to appropriate emission controls as necessary in order to attain and maintain the NAAQS, protect PSD increments, protect visibility, and meet other statutory requirements. Generally, this is achieved through enforceable emission limitations on sources that apply, as required by the CAA, continuously.

Nevertheless, the practical realities of controlling source emissions continuously — even for sources that are designed, maintained and operated well — may create difficulty in meeting a legally required emission limitation 100 percent of the time. Thus, the need for stringent emission limitations consistent with CAA requirements for attainment and maintenance of the NAAQS can, in limited circumstances, conflict with the reality that some sources may occasionally have difficulties in meeting those emission limitations during all phases of operations and, in particular, in the case of malfunctions that are genuinely beyond the sources’

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<sup>17</sup> Under CAA section 113(b) and section 113(d), Congress specified statutory judicial and administrative civil penalties for violations of the CAA, including violations of SIP provisions. Currently, the statutory penalty is \$37,500 per day, per violation.

control. Even sources that are correctly designed, operated, and maintained can experience events that they could not reasonably anticipate and plan for.<sup>18</sup>

Since 1977, the EPA has attempted to resolve this fundamental tension in the SIP program through guidance recommendations concerning how to meet the objectives of the CAA, such as attainment of the NAAQS and protection of PSD increments, while providing for appropriate enforcement flexibility. This guidance has consistently recommended the exercise of enforcement discretion for violations due to excess emissions during SSM events. Under this approach, state and federal regulators exercise their normal discretion to decide whether a given violation should be subject to an enforcement action. Considerations such as the seriousness of the violation and the culpability of the violator can play a role in this exercise of enforcement discretion. Alternatively, the EPA's guidance has recommended other approaches, such as SIP provisions that provide an affirmative defense to monetary penalties in enforcement actions under certain limited circumstances.

The Petition touched upon many aspects of the EPA's guidance for SIP provisions in the SSM Policy, and thus a summary of the evolution of that guidance is warranted here.

The EPA has a longstanding interpretation of the CAA with respect to the treatment of excess emissions during periods of startup, shutdown, or malfunction in SIPs. This statutory interpretation has been expressed, reiterated, and elaborated upon in a series of guidance documents issued in 1982, 1983, 1999, and 2001. In addition, the EPA has applied this interpretation in individual rulemaking actions in which the EPA: (i) approved SIP submissions that were consistent with the EPA's interpretation,<sup>19</sup> (ii) disapproved SIP submissions that were not consistent with that interpretation,<sup>20</sup> (iii) itself promulgated regulations in federal implementation plans (FIPs) that were consistent with that interpretation,<sup>21</sup> or (iv) issued a SIP call requiring a state to revise an impermissible SIP provision.<sup>22</sup> The general parameters of the EPA's longstanding interpretation are well-known but can be summarized as follows.

In 1982, the EPA issued a guidance document titled, "Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions" (the "1982 SSM Guidance").<sup>23</sup> In the 1982 SSM Guidance, the EPA frankly acknowledged that in the earliest phase of the SIP program in

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<sup>18</sup> This issue and the court decisions reflecting the early attempts to address this issue are discussed in more detail in section IV of the preamble to this action.

<sup>19</sup> See "Approval and Promulgation of Implementation Plans; Texas; Excess Emissions During Startup, Shutdown, Maintenance, and Malfunction Activities," 75 FR 68989 (Nov. 10, 2010).

<sup>20</sup> See "Approval and Promulgation of State Implementation Plans; Michigan," 63 FR 8573 (Feb. 20, 1998).

<sup>21</sup> See "Federal Implementation Plan for the Billings/Laurel, MT, Sulfur Dioxide Area," 73 FR 21418 (Apr. 21, 2008).

<sup>22</sup> See "Finding of Substantial Inadequacy of Implementation Plan; Call for Utah State Implementation Plan Revision," 76 FR 21639 (Apr. 18, 2011).

<sup>23</sup> This memorandum was sent by Kathleen M. Bennett, Assistant Administrator for Air, Noise, and Radiation, to the Regional Administrators, Regions I–X on Sept. 28, 1982. The memorandum can be found in the docket for this rulemaking.



the 1970s, the EPA had not always recognized the implications of SIP provisions that explicitly or implicitly provided automatic exemptions for excess emissions during periods of startup, shutdown, or malfunction. As a result, the EPA had incorrectly approved some provisions of this type that were inconsistent with the requirements of the CAA. The EPA stated that such exemptions are inappropriate because "SIPs are ambient-based standards and any emissions above the allowable may cause or contribute to violations of the national ambient air quality standards." The EPA's 1982 SSM Guidance also noted that starting in 1977, the EPA had taken actions to rectify such problematic provisions in SIP submissions on a case-by-case basis.<sup>24</sup>

In the 1982 SSM Guidance, the EPA articulated its belief that it would be appropriate for regulators to distinguish between degrees of culpability for violations and thus to exercise enforcement discretion in such a way as to encourage sources to comply by taking responsible actions into account, yet still encouraging compliance at all times, per the requirements of the CAA. The EPA acknowledged that some malfunctions are unavoidable:

Generally, EPA agrees that the imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner and/or operator is not appropriate.

However, the EPA was also mindful of its overarching duty under the CAA to protect public health through effective implementation of the NAAQS. From the outset, the EPA has explained that excess emissions are violations, even in the case of unforeseen malfunctions, and that exemptions from SIP emission limitations for such events are not consistent with the requirements of the CAA:

The rationale for establishing these emissions as violations, as opposed to granting automatic exemptions, is that SIPs are ambient-based standards and any emissions above the allowable may cause or contribute to violations of the national ambient air quality standards. Without clear definitions and limitations, these automatic exemption provisions could effectively shield excess emissions arising from poor operation and maintenance or design, thus precluding attainment. Additionally, by establishing an enforcement discretion approach and by requiring the source to demonstrate the existence of an unavoidable malfunction on the source, good maintenance procedures are indirectly encouraged.<sup>25</sup>

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<sup>24</sup> The EPA identified in the 1982 SSM Guidance two actions in which the EPA finalized rules that applied to specific sources located in Utah and Idaho. In each action, the EPA expressed its views regarding issues such as automatic exemptions from applicable limits, factors for consideration in the exercise of enforcement discretion, and distinctions in enforcement treatment that might be warranted between excess emissions that result from unforeseen malfunctions versus those from predictable startup, shutdown, or routine maintenance. *See* "Approval and Promulgation of Implementation Plans – Utah SO<sub>2</sub> Control Strategy," 42 FR 21472 (Apr. 27, 1977); "Approval and Promulgation of Implementation Plans – Idaho SO<sub>2</sub> Control Strategy," 42 FR 58171 (Nov. 8, 1977).

<sup>25</sup> 1982 SSM Guidance, Attachment at 1. Even prior to the issuance of the 1982 SSM Guidance, it was the EPA's position that all excess emissions, regardless of cause, should be treated as violations so as to provide sources with

The most salient features of the 1982 SSM Guidance were that: (1) automatic exemptions for emissions above applicable emission limitations during malfunctions are impermissible; (2) an enforcement discretion approach for violations during malfunctions is permissible; (3) the EPA recommended five criteria that should be considered in exercising enforcement discretion in the case of malfunctions;<sup>26</sup> (4) excess emissions during startup and shutdown are predictable parts of normal operations and should have been planned for, and thus enforcement discretion is less warranted; and (5) excess emissions during scheduled maintenance are likewise predictable, and thus enforcement discretion is less warranted.

In 1983, the EPA issued a second guidance document titled, “Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions” (the “1983 SSM Guidance”).<sup>27</sup> In the 1983 SSM Guidance, the EPA reiterated and clarified its views about the requirements of the CAA stated in the 1982 SSM Guidance. In particular, the EPA repeated its view that “[i]f a SIP contains a malfunction provision, it cannot be the type that provides for automatic exemption where a malfunction is alleged by a source.”<sup>28</sup> As in the 1982 SSM Guidance, the EPA emphasized that excess emissions during malfunctions “might aggravate air quality so as not to provide for attainment of the ambient air quality standards” and referred to the prior 1977 SIP disapprovals in Utah and Idaho for additional explanation.<sup>29</sup> Thus, the 1983 SSM Guidance reiterated the EPA’s view that excess emissions during malfunctions are violations and cannot be exempted, consistent with core CAA requirements for SIPs.

Significantly, the 1983 SSM Guidance further recommended that states could elect to address such violations via an “enforcement discretion approach” for malfunctions with state regulatory provisions actually incorporated into a SIP.<sup>30</sup> The EPA recommended five criteria that states should consider in such SIP provisions for determining whether an enforcement action is appropriate. The criteria include considerations such as the maintenance and operation of the source consistent with good practices to minimize emissions, expeditious repairs, and

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incentive to design their facilities properly in the first instance and to improve their operation and maintenance practices over time. *See, e.g.*, 42 FR 58171 (Nov. 8, 1977).

<sup>26</sup> The criteria enumerated were, in essence, that the violator: (1) properly maintained and operated the source to minimize emissions; (2) made necessary repairs expeditiously when the operator knew or should have known that the limits were being exceeded; (3) minimized the amount and duration of the excess emissions to the maximum extent practicable; (4) took all possible steps to minimize the impact of excess emissions on ambient air quality; and (5) established that the excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance. *See* 1982 SSM Guidance at Attachment 2. Many of these criteria are analogous to those that the EPA has enumerated in later guidance documents.

<sup>27</sup> This memorandum was sent by Kathleen M. Bennett, Assistant Administrator for Air, Noise, and Radiation, to the Regional Administrators, Regions I–X on Feb. 15, 1983. The memorandum can be found in the docket for this rulemaking.

<sup>28</sup> 1983 SSM Guidance, Attachment at 1.

<sup>29</sup> *See supra* note 23.

<sup>30</sup> 1983 SSM Guidance, Attachment at 2. The EPA noted that, in general, so called “state only” provisions should not be included in SIPs. Such provisions can lead to confusion about what is or is not necessary to meet CAA requirements and what is or is not a federally enforceable provision.

minimization of the amount and duration of the excess emissions. Under this enforcement discretion approach, a state retains discretion whether or not to bring an enforcement action following a violation, depending upon the circumstances and the criteria previously included in the SIP.<sup>31</sup> At no point, however, did the 1983 SSM Guidance suggest that these SIP provisions providing for the “enforcement discretion approach” could apply to any other party who might seek to enforce against the source. Even if a state elects to provide parameters for its own exercise of enforcement discretion, the decision of the state not to enforce cannot be construed to preclude enforcement by the EPA or citizens.

In 1999, the EPA issued a more detailed guidance document that provided additional explanation of its interpretation of statutory requirements relevant to excess emissions. This guidance document was titled, “State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown” (the “1999 SSM Guidance”).<sup>32</sup> The primary purpose of the 1999 SSM Guidance was to clarify the EPA's views with respect to an alternative approach to excess emissions, *i.e.*, SIP provisions that create an affirmative defense for qualifying sources to utilize in enforcement proceedings under certain circumstances.

The 1999 SSM Guidance reiterated the EPA's interpretation of the CAA that excess emissions during SSM events are violations. However, the EPA also recommended that, in addition to the exercise of enforcement discretion, a state could elect to include a narrowly drawn affirmative defense provision in the SIP. Under this approach, a SIP provision could provide an affirmative defense to monetary penalties in an enforcement action for violations of SIP emission limitations, but not a defense to injunctive relief. The EPA explained that because periods of excess emissions could undermine important CAA objectives such as attainment and maintenance of the NAAQS and protection of PSD increments, an affirmative defense to an action for injunctive relief would not be appropriate. In other words, in appropriate circumstances, the source could be excused from liability for monetary penalties but not excused from a requirement to install additional emissions controls or modify its mode of operation as necessary to meet CAA requirements, *e.g.*, meeting emission limitations designed to protect the NAAQS.

A major portion of the 1999 SSM Guidance addressed what forms of affirmative defense provisions might be permissible in SIPs under certain circumstances in light of the statutory requirements of the CAA. For *malfunctions*, the 1999 SSM Guidance articulated in detail the types of considerations that would be relevant in assessing an affirmative defense provision. The EPA recommended that, “to be approvable,” the state should create an affirmative defense

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<sup>31</sup> The EPA notes that SIPs must also meet basic requirements for enforcement under the CAA, including those of sections 110(a)(1), 110(a)(2)(A), 110(a)(2)(C), and 110(a)(2)(E). Thus, the EPA could not approve SIP provisions that would unduly limit enforcement by the state itself to the degree that its enforcement program becomes inadequate for implementation, maintenance, and enforcement of the NAAQS. An enforcement discretion provision in a SIP that functionally eliminated the state's authority and ability to enforce the provisions of the SIP effectively would fail to meet CAA requirements with respect to enforcement.

<sup>32</sup> This memorandum was sent by Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance, and Robert Perciasepe, Assistant Administrator for Air and Radiation, to the Regional Administrators, Regions I-X on Sept. 20, 1999. A copy of the 1999 SSM Guidance can be found in the docket for this rulemaking.

provision that would give the violator the burden of proof to establish ten enumerated criteria.<sup>33</sup> For affirmative defense provisions for *startup and shutdown* events, the EPA recommended that the state should give the violator the burden of proof to establish nine enumerated criteria comparable to those for malfunctions but tailored to apply to startup and shutdown events. As discussed in section VII.C of the preamble to this proposed action, the EPA is proposing to revise its view that affirmative defense provisions would be consistent with the requirements of the CAA in the case of startup or shutdown.

An important feature of the 1999 SSM Guidance relevant to action on the Petition is the emphasis that the EPA put on recommending against the creation of SIP provisions that would provide an affirmative defense in the case of emission limitations applicable to “a source or small group of sources that has the potential to cause an exceedance of the NAAQS or PSD increments.”<sup>34</sup> The EPA explained that the basis for this concern was that, for the lead and sulfur dioxide NAAQS in particular, “attainment problems are caused by one or a few sources” and that “this situation can be particularly aggravated where a short-term standard . . . is in place.” Thus, the EPA recommended that states rely on a traditional enforcement discretion approach where the nature of the source or the averaging period of the NAAQS would be of concern.<sup>35</sup> The EPA’s guidance indicated that affirmative defense provisions might still be consistent with CAA requirements for other sources or other NAAQS and thus left open the possibility that such provisions might be acceptable in certain circumstances, even for sources or groups of sources with the potential to cause violations of the NAAQS.<sup>36</sup>

Another feature of the 1999 SSM Guidance that is particularly pertinent to the EPA’s evaluation of the Petition is the express statement concerning the interrelationship between SIP provisions and citizen-suit enforcement under CAA section 304. The EPA stated unequivocally that it:

does not intend to approve SIP revisions that would enable a State director's decision to bar EPA's or citizens' ability to enforce applicable requirements. Such

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<sup>33</sup> The EPA emphasizes that given the fact this statement appeared in a guidance document, from the context it is understood to be the EPA’s recommendations with respect to what features would make a given affirmative defense provision consistent with CAA requirements. When the EPA takes rulemaking action would be the juncture at which the EPA determines whether the specific affirmative defense provision at issue contains appropriate criteria to meet CAA requirements.

<sup>34</sup> See 1999 SSM Guidance at 4, and Attachment at 2, 3, and 5.

<sup>35</sup> *Id.* at 2, n.2.

<sup>36</sup> The EPA notes that the 1999 SSM Guidance reserved judgment on whether affirmative defense provisions would be appropriate with respect to a single source or group of sources with the potential to cause an exceedance of the PM<sub>2.5</sub> NAAQS or PSD increments. 1999 SSM Guidance at 3, n.3. At this juncture, the EPA has concluded that PM<sub>2.5</sub> is not a pollutant for which it would be necessary to recommend against affirmative defenses for such sources across the board and that such decisions should be made on a case-by-case basis, taking into consideration the sources at issue and the facts and circumstances concerning their likelihood to have such impacts through excess emissions during malfunctions.

an approach would be inconsistent with the regulatory scheme established in Title I of the Clean Air Act.<sup>37</sup>

Thus, the EPA's longstanding view has been that no SIP can have an enforcement discretion provision that could legally bar enforcement against violations of SIP emission limitations by the EPA or by citizens, because such a provision would be inconsistent with the express requirements of CAA sections 113 and 304. This fundamental principle is also relevant in the context of the "discretionary exemptions" that would authorize state personnel to transform violations into exemptions on a case-by-case basis. The EPA believes that SIP provisions that include unbounded discretion for state personnel unilaterally to change or to grant variances from applicable SIP provisions are problematic and inconsistent with the requirements of the CAA in general. Provisions that purport to empower state personnel unilaterally to grant an exemption from applicable emission limitations of the SIP, when such an exemption would not be consistent with CAA requirements in the first instance, are particularly impermissible. The practical impact of a director's discretion provision in the SIP that allows case-by-case exemptions from the otherwise applicable emission limitations is that it imposes the enforcement discretion decisions of a state on the EPA and citizens. Such a provision is inconsistent with the requirements of the CAA.

Significantly, the 1999 SSM Guidance did not speak explicitly to how the EPA would proceed to implement its interpretation of the CAA requirements. The guidance merely stated that the EPA Regions "should review the SIPs for their States in light of this clarification and take steps to insure that excess emissions provisions in these SIPs are consistent with the attached guidance."<sup>38</sup> Therefore, the document did not clearly indicate whether the EPA intended to follow this approach when it vetted new SIP submissions prospectively, or intended to reexamine previously approved SIPs for consistency with this approach retrospectively, or both. Moreover, the EPA's statements concerning the correct interpretation of the CAA with respect to excess emissions during SSM events had the potential to affect other legal requirements. This ambiguity resulted in the EPA's issuance of an additional guidance document to address those issues.

In 2001, clarifying the 1999 SSM Guidance, the EPA issued a guidance document titled, "Re-Issuance of Clarification – State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown" (the "2001 SSM Guidance").<sup>39</sup> The EPA emphasized four important points in this guidance. First, the EPA stated that its interpretation of the requirements of the CAA expressed in the 1999 SSM Guidance "was not intended to alter the status of any existing malfunction, startup or shutdown provision in a SIP that has been approved by EPA." Second, the EPA indicated that this interpretation was not intended "to affect existing permit terms or conditions regarding malfunctions, startups and

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<sup>37</sup> See 1999 SSM Guidance at 3.

<sup>38</sup> *Id.* at 4.

<sup>39</sup> This memorandum was sent by Eric Schaeffer, Director, Office of Regulatory Enforcement, Office of Enforcement and Compliance Assurance, and John S. Seitz, Director, Office of Air Quality Planning and Standards, Office of Air and Radiation, to the Regional Administrators, Regions I-X on Dec. 5, 2001. The memorandum can be found in the docket for this rulemaking.

shutdowns that reflect approved SIP provisions” or “to alter the emergency defense provisions at 40 C.F.R §70.6(g),” *i.e.*, the title V regulations pertaining to “emergency” provisions in title V permits.<sup>40</sup> Third, the EPA emphasized that it did not intend its interpretation “to be legally dispositive with respect to any particular proceedings in which a violation is alleged to have occurred.” Fourth, and most importantly for this proposal, the EPA stated that it would consider the 1999 SSM Guidance and the statutory principles on which it is based when undertaking future rulemaking actions such as the SIP approval process. Thus, the 2001 SSM Guidance indicated that the EPA would take later rulemaking actions, if necessary, in order to rectify existing SIP provisions that are inconsistent with the requirements of the CAA.

Together, this series of four guidance documents and related rulemaking actions taken by the EPA over the last 30 years reflects the EPA's longstanding interpretation of the CAA with respect to the appropriate treatment of excess emissions during periods of startup, shutdown, and malfunction in SIPs. For ease of discussion, this memorandum refers in general to these guidance documents as the EPA's “SSM Policy,” and where a more specific reference is needed, it refers to the relevant guidance document for more specific points, *e.g.*, to the 1999 SSM Guidance.

At this juncture, it is useful to emphasize core principles of the EPA's SSM Policy that are relevant to the proposal. First, EPA guidance has consistently stated that excess emissions during periods of startup, shutdown, and malfunction constitute violations of the applicable SIP emission limitations. Automatic exemptions to excuse excess emissions during SSM events from applicable emission limitations in SIPs are not permissible because they are inconsistent with the fundamental statutory requirements of the CAA. The EPA's longstanding interpretation of the CAA is that broad exemptions from compliance with emission limitations during periods of startup, shutdown, or malfunction prevent a SIP from adequately ensuring attainment and maintenance of the NAAQS, protecting PSD increments, protecting visibility, and complying with other CAA requirements. For purposes such as demonstrating attainment and maintenance of the NAAQS, states rely on assumed continuous compliance with emission limitations.<sup>41</sup>

Second, the EPA has also reiterated that states may elect to exercise traditional enforcement discretion with respect to violations of applicable SIP emission limitations during periods of startup, shutdown, and malfunction. The EPA likewise has enforcement discretion and may itself elect not to enforce against such violations. The EPA has also made recommendations to states about considerations that may be relevant if a state elects to specify parameters for the exercise of enforcement discretion in SIP provisions, applicable only to the state's own enforcement personnel. However, exercise of enforcement discretion by the state may not foreclose enforcement by the EPA under CAA section 113 or by others through the mechanism of a citizen suit under CAA section 304.

Third, the EPA has also recognized that there are circumstances where, under conditions that are beyond the control of the source, the source has done all within its power to prevent the violation and to minimize adverse consequences of the violation. The EPA has long stated that in such

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<sup>40</sup> This issue is discussed in more detail in section VII.D of the preamble to this action.

<sup>41</sup> *See, e.g.*, CAA sections 110(a)(2)(A) and (C); 40 CFR 51.112; *Train*, 421 U.S. at 78–79 (1975).

circumstances it may be appropriate for regulators to take various factors into consideration in enforcement proceedings and has made recommendations for relevant criteria. More recently, the EPA recognized that it may be appropriate for states to elect to include narrowly drawn affirmative defense provisions in SIPs to provide relief from monetary penalties. The EPA believes that this is a reasonable interpretation of the applicable provisions of the CAA and also that this provides incentives for sources to be properly designed, maintained, and operated, and to take action to prevent and to minimize the effects of the excess emissions in return for the possibility of being shielded from monetary penalties in an enforcement action. For this reason, the 1999 SSM Guidance delineates the types of criteria that EPA considers appropriate in affirmative defense provisions that would be consistent with the requirements of the CAA and thus permissible in SIPs. As discussed in section IV.B of the preamble to the proposed action, the EPA has reevaluated the question of affirmative defenses in SIPs for periods of malfunctions versus planned startup and shutdown.

It is important to emphasize that an affirmative defense provision does not negate the fact that excess emissions during a qualifying event are a violation of the applicable emission limitations of the SIP. By this means, the emission limitation in question can meet the cardinal statutory requirement that it be a continuous limit or control on the source. An appropriate affirmative defense provision also does not provide an automatic bar to monetary penalties for violations. An affirmative defense provision merely provides a source the opportunity to assert in an enforcement proceeding, and to prove with requisite facts, that the source should not be subject to monetary penalties for violations under certain narrow circumstances. Under no circumstances, however, could an affirmative defense provision exempt the violating source from injunctive relief or from any other form of relief that a court may consider appropriate, consistent with the specific provision applicable to the source in the approved SIP.

More recently, consistent with the 1999 SSM Guidance, the EPA has repeated its earlier recommendations that states adopt a different approach to address emissions that occur during planned startups and shutdowns in their SIPs. For those sources or source categories for which compliance with the otherwise applicable emission limitations during startup and/or shutdown is not possible, the state may elect to develop alternative emission limitations or control measures applicable during such events, so that emissions during such events could then be accounted for correctly in SIPs for purposes of meeting CAA objectives, such as attaining and maintaining the NAAQS.<sup>42</sup> The EPA previously made this recommendation in the 1999 SSM Guidance for source category-specific treatment of emissions from sources during startup or shutdown, where that is necessary.<sup>43</sup>

Finally, it is important to note that many states have already worked with the EPA to revise their SIPs to resolve concerns about excess emissions during SSM events. Utilizing the recommendations in the 1999 SSM Guidance, these states have thus taken steps to eliminate impermissible automatic or discretionary exemptions and to adopt affirmative defense provisions

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<sup>42</sup> See “Approval and Promulgation of Implementation Plans; Texas; Excess Emissions During Startup, Shutdown, Maintenance, and Malfunction Activities,” 75 FR 68989, at n.6 (Nov. 10, 2010).

<sup>43</sup> See 1999 SSM Guidance, Attachment at 4–5.

or other approaches to excess emissions during SSM events that are consistent with the requirements of the CAA.<sup>44</sup>

### **Legal Status of the EPA's SSM Policy**

The EPA's SSM Policy is a policy statement and thus constitutes guidance. As guidance, the SSM Policy does not bind states, the EPA, or other parties, but it does reflect the EPA's interpretation of the statutory requirements of the CAA. The EPA's evaluation of any SIP provision, whether prospectively in the case of a new provision in a SIP submission or retrospectively in the case of a previously approved SIP submission, must be conducted through a notice-and-comment rulemaking in which the EPA will determine whether or not a given SIP provision is consistent with the requirements of the CAA and applicable regulations.<sup>45</sup>

For example, the SSM Policy reflects the EPA's longstanding interpretation that the CAA does not allow automatic exemptions from emission limitations in SIPs. Similarly, the EPA's SSM Policy includes recommendations to states concerning appropriate parameters for SIP provisions providing an affirmative defense to monetary penalties for violations that may be permissible under the CAA, but as guidance it is not outcome-determinative. The actual question of whether a given provision is consistent with the requirements of the CAA must be evaluated and decided through notice-and-comment rulemaking. Indeed, in responding to the Petition, the EPA is evaluating the specific existing SIP provisions identified in the Petition for consistency with the requirements of the CAA through notice-and-comment rulemaking.

The EPA utilizes the SSM Policy as guidance to inform its own actions, whether in the review of a SIP submission or in promulgation of a FIP. For example, in approving a SIP submission from Arizona, the EPA determined that an affirmative defense provision created by the state was consistent with the EPA's interpretation of the CAA even though the state provisions had a feature somewhat different than those recommended in the 1999 SSM Guidance.<sup>46</sup> The EPA explained that although the state provision did not have an explicit criterion with respect to proving no recurrent pattern of violations indicative of inadequate design, operation, or maintenance, the other criteria for the affirmative defense in the state's SIP submission sufficiently addressed this issue.

Similarly, in the FIP that the EPA itself promulgated to address emissions from several sources in Montana, the EPA included an affirmative defense provision for excess emissions,

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<sup>44</sup> For example, at the EPA's request, a number of states have already revised their SIPs in order to eliminate impermissible provisions applicable to excess emissions during SSM events. These states include: (i) Colorado, which revised its SIP provisions for SSM in 2006 (71 FR 8958; Feb. 22, 2006) and 2008 (73 FR 45879; Aug. 7, 2008); (ii) Wyoming, which revised its SIP provision for malfunctions (75 FR 19886; Apr. 16, 2010); and (iii) North Dakota, which revised its SIP provision for malfunctions (76 FR 68317; Nov. 4, 2011).

<sup>45</sup> See generally *Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 33–35 (D.C. Cir. 2009) (upholding the EPA's process for developing and applying its guidance to designations).

<sup>46</sup> See "Revisions to the Arizona State Implementation Plan, Arizona Department of Environmental Quality," 66 FR 48087 (Sept. 18, 2001).



notwithstanding the fact that the sources in question could have the “potential” to cause a NAAQS violation and thus were the type of source for which the 1999 SSM Guidance recommended against inclusion of an affirmative defense. The EPA concluded, however, that an affirmative defense provision would be appropriate for the affected sources, given the facts and circumstances of that action, because it “should provide a significant incentive to the facilities to take steps to avoid and reduce flaring whenever possible.”<sup>47</sup> In other words, the EPA concluded that providing for an affirmative defense in this specific instance was more likely to result in better source compliance and thus would better support the objective of attaining and maintaining the NAAQS in this particular area.

Significantly, courts have already considered the EPA's SSM Policy on a number of occasions. In these decisions, courts have already upheld the EPA's interpretation of the CAA with respect to key aspects of the SSM Policy. Even when not directly addressing the substance of the SSM Policy, these decisions help to inform the EPA's action on the Petition at issue in the proposal. Six judicial decisions are particularly relevant.

In *Michigan Department of Environmental Quality v. Browner*, the court evaluated whether the EPA had appropriately disapproved a SIP submission from a state that would have created an automatic exemption for excess emissions during periods of startup, shutdown, and malfunction.<sup>48</sup> The court agreed that the CAA requires continuous compliance with emission limitations by sources, including during periods of startup, shutdown, and malfunction, and does not permit automatic exemptions from such limitations during those periods. The court also agreed that allowing such exemptions from compliance could adversely impact ambient air quality, and thus the attainment and maintenance of the applicable NAAQS, and thereby injure public health.<sup>49</sup> Therefore, the court upheld the EPA's longstanding view, then most recently embodied in the 1999 SSM Guidance, that exemptions for excess emissions during SSM events are not consistent with the requirements of the CAA.

Another court did not directly rule on the merits of the EPA's interpretation of the CAA embodied in the SSM Policy but did issue an opinion that illustrates the need for EPA to address the issues raised in the Petition. In *Sierra Club v. Georgia Power Co.*, the court considered issues raised in the context of a citizen suit to enforce against a source for alleged violations of emission limitations in the applicable permit that reflected the underlying SIP.<sup>50</sup> Evidence at trial indicated that the source had itself reported emissions that exceeded the generally applicable numerical emission limitations “on thousands of occasions.” The core question, however, was whether these exceedances of the emission limitations in fact constituted violations based upon proper interpretation of certain provisions in the SIP relevant to excess emissions during SSM events.

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<sup>47</sup> See “Federal Implementation Plan for the Billings/Laurel, MT, Sulfur Dioxide Area,” 73 FR 21418 at 21435-36 (Apr. 21, 2008).

<sup>48</sup> 230 F.3d 181 (6th Cir. 2000).

<sup>49</sup> *Id.* at 185.

<sup>50</sup> 443 F.3d 1346, *reversing Sierra Club v. Ga. Power Co.*, 365 F.Supp 2d 1297 (N.D. Ga. 2004).

The trial court reached the conclusion that the excess emissions were violations because the provisions at issue were merely enforcement discretion provisions applicable to state personnel. Thus, the trial court ruled that the citizen-suit plaintiffs could pursue enforcement for the alleged violations and found those excess emissions to be violations. The appellate court, however, reached the opposite conclusion. It held that the excess emissions were not violations, reasoning that the same SIP provisions were instead an affirmative defense available to the source that authorized a complete bar to any liability for violations if the conditions for the defense were met. In so holding, the appellate court observed that the SIP provisions at issue might not be consistent with the EPA's then-current interpretation of the requirements of the CAA with respect to SSM events but noted that if the provisions were not consistent, then the EPA would need to take action through a SIP call to address that apparent deficiency in the SIP.<sup>51</sup>

Thus, the court's decision in *Sierra Club v. Georgia Power Co.* illustrates the real-world concern that arises when a state's existing SIP provision is inconsistent with CAA requirements. Such a provision, whether deemed consistent with the CAA or not when originally approved as part of a SIP, remains the operative legal requirement in the SIP unless and until action is taken by the state or the EPA to rectify the deficiency through appropriate administrative process. As a result, the ability of the state, the EPA, or citizens to enforce the correct requirements of the CAA in the event of excess emissions during an SSM event will be negated.

Other courts have evaluated the EPA's own compliance with the requirements of the CAA and the interpretations of the CAA embodied in the EPA's SSM Policy when applied in the event of a FIP. In *Arizona Public Service Co. v. EPA*, the court considered a challenge to the provisions of a FIP promulgated by the EPA to address the emissions from a specific source.<sup>52</sup> In the challenged FIP, the EPA declined to provide an exemption for excess emissions during malfunctions, consistent with the view that under the CAA such emissions must be treated as a violation. Rather than the automatic exemption sought by the source, the EPA instead provided an affirmative defense provision for excess emissions during malfunctions. The source objected to the lack of an automatic exemption and objected to having to bear the burden of proof to establish that it was entitled to an affirmative defense in an enforcement proceeding.

In evaluating the source's challenge, the court considered the EPA's longstanding interpretation that “excess emissions resulting from malfunctions are violations of the Clean Air Act, for such emissions can interfere with attainment of the national air standards” and concluded that the EPA's SSM Policy “is a reasonable interpretation of the Clean Air Act.”<sup>53</sup> Thus, the court in *Arizona Public Service Co. v. EPA* upheld core principles of the EPA's SSM Policy interpreting the requirements of the CAA, including that it is not permissible to exempt excess emissions

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<sup>51</sup> It should be noted that the same principle (no unilaterally revising a SIP) applies with respect to a state when it seeks to change its SIP without seeking approval for a SIP revision from the EPA. See *Sierra Club v. Tenn. Valley Auth.*, 430 F.3d 1337, 1346 (11th Cir. 2005) (state regulation that altered the applicable emission limit in the SIP and made it less stringent without EPA approval was “an illegal, unilateral modification of the Alabama SIP”).

<sup>52</sup> See 562 F.3d 1116 (10th Cir. 2009).

<sup>53</sup> *Id.* at 1128.

during malfunctions but that it may be appropriate to allow narrow affirmative defense provisions.

The EPA's interpretation of the CAA to prohibit exemptions for excess emissions during SSM events in SIP or FIP provisions, but to allow appropriately drawn affirmative defenses, was also tested in a recent challenge to a SIP call and a FIP in Montana. In *Montana Sulphur & Chemical Co. v. EPA*, the court evaluated an industry challenge to various aspects of a SIP call and FIP applicable to a specific source.<sup>54</sup> The EPA had issued the initial SIP call, disapproved the resulting SIP submission, and ultimately promulgated the FIP, *inter alia*, because the state had exempted sulfur dioxide emissions from a stationary source that were released from flares.<sup>55</sup> Among other challenges, the source argued that emissions from flares at the source should not be subject to any emission limitation and should be totally exempt as excess emissions that occur during SSM events. The EPA disagreed that a total exemption for such flare emissions was allowable under the CAA, imposed a numerical emission limitation that it considered appropriate for the flares at this source, and also created an affirmative defense for violations of the emission limitation intended to provide relief for truly unavoidable excess emissions.

The court considered the source's arguments that numerical emissions on flares would be infeasible, that the EPA was acting inconsistently with other exemptions for excess emissions during SSM events, that the specific emission limitation at issue was unsupported technically, that EPA's SSM Policy should be accorded no deference as mere guidance, and that enforcement discretion cannot compensate for infeasible emission limitations.<sup>56</sup> The court rejected each of these arguments in turn and held that “the EPA reasonably interpreted the Clean Air Act to require continuous limits on emissions and that the actual numerical limits imposed by the FIP are neither arbitrary nor capricious.”<sup>57</sup> Significantly, the court specifically addressed the issue of whether the EPA should have provided an affirmative defense for excess emissions during malfunctions to a single source that has the potential to cause attainment problems through excess emissions. The court reasoned that even though the EPA's own 1999 SSM Guidance recommended against affirmative defense provisions for sources with this potential, the EPA had adequately explained the basis for this “deviation” from its guidance. The latter point again illustrates that the SSM Policy is guidance and that the EPA must evaluate specific SIP or FIP provisions relative to the requirements of the CAA through individual rulemaking.

The EPA's interpretation of the CAA to allow SIP provisions that create an affirmative defense to monetary penalties for violations in the case of unplanned events like malfunctions, but not in the case of planned events like maintenance, was directly addressed in another recent decision. In *Luminant Generation Co. v. EPA*, the court evaluated challenges to the EPA's approval of an affirmative defense provision applicable to excess emissions that resulted from “unplanned”

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<sup>54</sup> See 666 F.3d 1174 (9th Cir. 2012).

<sup>55</sup> The “flares” at such sources are equipment used to release gases to a device for incineration. Sources use such devices during malfunctions but also in more routine circumstances such as startup and shutdown.

<sup>56</sup> *Montana Sulphur & Chemical Co. v. EPA*, 666 F.3d 1174, 1190 (9th Cir. 2012).

<sup>57</sup> *Id.* at 1193.

SSM events and also evaluated challenges to EPA's disapproval of a comparable provision that provided an affirmative defense applicable to excess emissions that result from "planned" SSM events.<sup>58</sup>

With respect to the affirmative defense provision for *unplanned* events, environmental group litigants challenged the partial approval of the state's SIP submission as inconsistent with the CAA requirements of sections 110(k)(3), 110(l), and 113(b) and (e). The court rejected these arguments, however, because the EPA's partial approval was consistent with longstanding guidance, was decided through an appropriate notice-and-comment rulemaking process, and was based upon a permissible reading of the CAA consistent with the principles of *Chevron* deference.

A significant aspect of the court's opinion concerning the partial approval is the court's agreement with the EPA's view that the statutory provisions in CAA section 113 concerning monetary penalties do not explicitly bar a SIP provision allowing "the availability of an affirmative defense for certain unplanned SSM events under narrowly defined circumstances." As the court noted, the EPA has long recognized that the imposition of monetary penalties for "sudden and unavoidable" excess emissions may not be appropriate. With respect to the affirmative defense provision for *planned* events, industry litigants challenged the EPA's partial disapproval of the state's SIP submission as inconsistent with the requirements of the CAA. The court evaluated whether the partial disapproval was consistent with the EPA's guidance for such provisions, was decided through an appropriate notice-and-comment rulemaking process, and was based upon a permissible reading of the CAA consistent with the principle of *Chevron* deference. The court specifically held that the EPA's interpretation of CAA section 113 was a reasonable one, and deserving of deference, both as to the approval of the provision applicable to unplanned events and as to the disapproval of the provision applicable to planned events.

The EPA disapproved the portion of the SIP submission that pertained to planned SSM events for a number of reasons, including its coverage of excess emissions during planned maintenance, the inclusion of planned maintenance together with startup and shutdown, and ambiguities about which specific elements a source would have to establish to meet the requirements for an affirmative defense during planned SSM activities. As noted by the court, however, important reasons for the EPA's disapproval were the EPA's view that SIPs should be designed to deter avoidable excess emissions in order to meet CAA objectives such as attainment and maintenance of the NAAQS and the EPA's determination that affirmative defenses for planned SSM activity would undermine the enforceability of the CAA. "[A]n effective enforcement program must be able to collect penalties to deter *avoidable* violations."<sup>59</sup>

Another significant aspect of the court's opinion in *Luminant Generation Co. v. EPA* is its rejection of the challengers' argument that under CAA section 110(l), the EPA must definitively "prove" that a legally deficient affirmative defense provision would cause a violation of the

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<sup>58</sup> See *Luminant Generation Co. v. EPA*, 699 F.3d 427 (5th Cir. 2012) (upholding the EPA's approval of some SIP revisions and disapproval of others with respect to treatment of excess emissions during SSM events).

<sup>59</sup> *Id.* at 443 (emphasis added).

NAAQS in order to justify disapproval of that SIP provision. Under the standard of CAA section 110(l) that the EPA may not approve a SIP revision that “would interfere” with CAA requirements, the court held that the EPA is only required “to provide reasoning supporting its conclusion that the disapproved provision would interfere with an applicable requirement of the Act.”<sup>60</sup> The EPA believes that it is not necessary to prove the specific impacts of an impermissible SIP provision and that it is sufficient for the EPA to establish that the provision is inconsistent with the fundamental requirements of the CAA and thus could have adverse impacts, such as interference with attainment and maintenance of the NAAQS, protection of PSD increments, protection of visibility, or in meeting other CAA requirements.

Finally, the court in *US Magnesium, LLC v. EPA* upheld the EPA's issuance of a SIP call to a state addressing an automatic exemption provision and an impermissible director's discretion exemption.<sup>61</sup> In the underlying action, the EPA issued a SIP call to the state in order to rectify three distinct SIP deficiencies related to excess emissions during SSM events: (i) a provision that provided an automatic exemption for excess emissions during “breakdowns,” *i.e.*, malfunctions; (ii) the fact that this exemption was applicable to federal regulations approved into the SIP thereby adding exemptions that are not permissible in those standards; and (iii) an ambiguous enforcement discretion provision that was worded in a way that could conflict with CAA requirements concerning enforcement.

In reaching this decision, the court evaluated several important questions related to the EPA's authority to issue a SIP call under CAA section 110(k)(5) for such SIP deficiencies. First, the court rejected the challenger's argument that in order to issue a SIP call, the EPA has to make specific factual showings that the excess emissions that resulted from the impermissible SIP provisions had a particularized environmental impact. Based on the EPA's reasonable interpretation of CAA section 110(k)(5), under *Chevron* step 2 analysis, the court concluded that the EPA had authority to issue a SIP call in “a situation like this, where the EPA determines that a SIP is no longer consistent with the EPA's understanding of the CAA” and that it was not necessary to make “specific factual findings to support the SIP Call.”<sup>62</sup>

Second, the court specifically evaluated and rejected the challenger's argument that the EPA had no basis for the SIP call because it relied on interpretations of the CAA expressed only in a guidance document, the 1999 SSM Guidance, rather than in a rule that had undergone notice-and-comment rulemaking. The court agreed that the EPA had issued the SIP call, informed by its interpretation of the CAA reflected in the 1999 SSM Guidance, through notice-and-comment rulemaking that interpreted the requirements of the statute and applied them to the facts. Thus, the court concluded that the EPA had not inappropriately relied on the SSM Policy.<sup>63</sup>

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<sup>60</sup> *Id.* at 446.

<sup>61</sup> *US Magnesium, LLC v. EPA*, 690 F.3d 1157 (10th Cir. 2012).

<sup>62</sup> *Id.* at 1168.

<sup>63</sup> *Id.*

Finally, the court agreed that the EPA has authority to issue a SIP call “in order to clarify language in the SIP that could be read to violate the CAA, when a court has not yet interpreted the language in that way.” The provision at issue appeared to give state officials the authority to determine unilaterally that a given excess emissions event should not be treated as a “violation,” and this could be interpreted by a court to preclude enforcement by the EPA or citizens for those excess emissions. In light of the “potential conflicts” between the provisions of the SIP and the requirements of the CAA, the court held that “seeking revision of the SIP was prudent, not arbitrary and capricious.”<sup>64</sup>

The *US Magnesium, LLC v. EPA* decision is an important precedent for the EPA’s action on the Petition as it embodies a number of similar issues. In addition to addressing key aspects of the EPA’s SSM Policy, such as interpretation of the CAA to bar automatic exemptions for excess emissions during SSM events in SIP provisions, the decision also illustrates that the SSM Policy is a guidance document that serves to reflect the EPA’s interpretation of the CAA that the EPA must apply through rulemaking to evaluate an existing SIP provision. This is precisely the process that the EPA is undertaking in its evaluation of the specific SIP provisions identified in the Petition as inconsistent with CAA requirements.

### **Regulatory Impacts of Deficient SIP Provisions**

The Petition raised issues related to excess emissions from sources during periods of startup, shutdown and malfunction, and the consequences of failing to address these emissions correctly in SIPs. In broad terms, the Petitioner expressed concerns that the exemptions for excess emissions and the other types of alleged deficiencies in existing SIP provisions “undermine the emission limits in SIPs and threaten states’ abilities to achieve and maintain the NAAQS, thereby threatening public health and public welfare, which includes agriculture, historic properties and natural areas.”<sup>65</sup> The Petitioner asserted that such exemptions for SSM events are “loopholes” that can allow dramatically higher amounts of emissions and that these emissions “can swamp the amount of pollutants emitted at other times.”<sup>66</sup> In addition, the Petitioner argued that these automatic and discretionary exemptions, as well as other SIP provisions that interfere with the enforcement structure of the CAA, undermine the objectives of the CAA.

The EPA notes that the alleged SIP deficiencies are not mere legal technicalities. Compliance with the applicable requirements is intended to achieve the air quality protection and improvement purposes and objectives of the CAA. The EPA believes that the results of automatic and discretionary exemptions in SIPs, and of other provisions that interfere with effective enforcement of SIPs, are real-world consequences that adversely affect public health.

First, the EPA is concerned about the amounts of excess emissions that occur during these exempt periods. SIPs contain emission limitations that the statute requires to apply continuously.

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<sup>64</sup> *Id.* at 1170.

<sup>65</sup> Petition at 2.

<sup>66</sup> Petition at 12.

Sources meeting those limits would under normal circumstances emit at levels that the state had determined were appropriate to meet CAA requirements, such as attainment and maintenance of the NAAQS, protection of PSD increments, and protection of visibility. However, SIP provisions that include automatic or discretionary exemptions potentially allow large amounts of additional emissions that are above and beyond the levels assumed in the SIP. Precise data on the extent and amounts of the extra emissions that result from these exemptions are hard to obtain, in large part for the very reason that these extra emissions are treated as exempt from the applicable emission limitations and thus may not be tracked carefully or consistently. Available evidence suggests that the amount of extra emissions that occurs during these exempt periods is potentially large. For example, in connection with the EPA's issuance of a SIP call to address an exemption for excess emissions during malfunctions in Utah, the EPA illustrated the practical consequences of such exemptions by noting the large amount of additional emissions during malfunctions at individual sources, *e.g.*, one malfunction that was estimated to emit 11,000 pounds of SO<sub>2</sub> over a 9-hour period when the applicable limit was 3,200 pounds per day. These excess emissions often occur in geographic areas in which any additional emissions could interfere with attainment and maintenance of the NAAQS, protection of PSD increments, protection of visibility, or other CAA objectives. Further, they often occur near communities in which any additional emissions could interfere with protecting the public health and environment as required by the CAA.<sup>67</sup>

Second, the EPA is concerned that the excess emissions that occur during these exempt periods are not adequately reflected in emissions inventories and therefore interfere with the states' ability to design air quality plans adequate to address emissions. Precisely because these emissions during SSM events are treated as exempt from the otherwise applicable emission limitations, these emissions may not be counted, or counted accurately, in the tally of emissions from all sources in an area. Emissions inventories often rely on hard data gathered from sources with more precise monitoring mechanisms, such as continuous emissions monitors (CEMs) for SO<sub>2</sub> at electric generating units covered by the EPA's Acid Rain Program, combined with estimated emissions that rely on "emissions factors" for source categories for which no such precise monitoring mechanisms are available or required. Typically, however, emissions inventories include emissions estimates that presume compliance by sources at all times throughout the year, and the inventory is not adjusted to include excess emissions that occur as a result from SSM events, whether retrospectively to account for what has occurred or prospectively to estimate what might occur. As a result, the cumulative extra emissions due to excess emissions during exempt SSM events could render the emissions inventory for an area inaccurate in ways that would interfere with achieving the required objectives of the CAA.

Third, the EPA is concerned that the failure to include these excess emissions in emissions inventories has effects that ripple throughout the SIP planning process. For example, emissions inventories are an important building block for developing an attainment plan for an area for reaching attainment of a NAAQS. Such inventories inform basic decisions about attainment strategies for a given area, such as evaluation of which source categories to regulate for which pollutants, by what form of emissions control, and on what schedule, in order to attain the

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<sup>67</sup> See "Approval and Promulgation of Implementation Plans – Utah SO<sub>2</sub> Control Strategy," 42 FR 21472 at 21643 (Apr. 27, 1977).

NAAQS as expeditiously as practicable. In turn, these decisions affect attainment demonstration modeling, which is intended to be an accurate evaluation of the efficacy of the control strategy and an accurate projection of whether the area will attain the NAAQS at the required time in the future. Inaccuracies about the reported level of total emissions in an area, exacerbated by exemptions for excess emissions during SSM events, can adversely affect each step of the SIP planning analysis and thus adversely impact the intended objectives. Depending upon the form and averaging time of the NAAQS in question, failure to account accurately for excess emissions that occur during SSM events could have even more pronounced adverse impacts. This is merely one example of how failure to regulate, and thus failure to account for, excess emissions during SSM events could have adverse consequences; this type of problem could arise in any number of regulatory contexts where accurate information about emissions is necessary to meet the CAA objective at issue.

Fourth, the EPA is concerned that SIP provisions that operate to preclude enforcement by the EPA or citizens for violations, whether through impermissible exemptions or other SIP provisions that function to bar effective enforcement, not only undermine the enforcement structure of the CAA in a technical sense but undermine effective enforcement in reality. Congress provided states, the EPA, and citizens with independent statutory enforcement authority to ensure compliance with CAA requirements. By empowering states, the EPA, and citizens to make their own enforcement decisions with respect to violations, the CAA provides deterrence and helps to assure better source compliance. SIP provisions that transform what should be considered violations into exempt emissions, or that impose the enforcement discretion decisions of a state on the EPA or citizens, undermine enforcement of the CAA.

Fifth, affirmative defense provisions that are not narrowly drawn to provide relief from monetary penalties only under appropriate circumstances are not merely inconsistent with the overarching requirements of the CAA but also undermine the enforcement structure of the CAA in practical ways. Improperly drawn affirmative defense provisions include those that purport to bar enforcement for injunctive relief, those that provide insufficient criteria to assure that they are used only in appropriate circumstances, and those that shield sources from potential penalties in circumstances where the source could have predicted and prevented the emissions because the event in question was a part of normal source operation. The CAA specifically authorizes monetary penalties for violations, and the EPA believes that relief from such penalties is only appropriate in narrow circumstances when the event was beyond the control of the source. Elimination of the possibility of monetary penalties in other circumstances not only violates the requirements of the CAA but, as a practical matter, it also reduces the incentive for sources either to comply with the law or to take special precautions to comply in order to be qualified to assert a defense to those penalties.

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