

Southeastern Air Pollution Control Program Concerns
Implementation of the National Ambient Air Quality Standard for Sulfur Dioxide
November 21, 2011

Purpose

The purpose of this paper is to express our concerns of the southeastern environmental agencies about the United States Environmental Protection Agency's (EPA's) intended strategy for implementation of the Sulfur Dioxide (SO₂) National Ambient Air Quality Standard (NAAQS) and to provide recommended actions for EPA that would resolve the concerns. The agencies recognize their responsibility for protecting human health and the environment. They have a solid record of doing so, as evidenced by consistent improvement of air quality in the Southeast and the significant resources that are dedicated to this effort. That commitment continues, supplemented by the necessity to manage wisely the limited resources of the agencies and to work with EPA to ensure that procedures and deadlines it mandates are legally and technically sound as well as practically achievable.

The southeastern agencies have previously communicated these concerns to EPA in face-to-face meetings and letters and through participation in conference calls and workgroups. However, as of this date, EPA has not adequately addressed our concerns, but is, instead, continuing to follow its original course of action. EPA's intended strategy is inconsistent with Congress' intent for implementation of the Clean Air Act (CAA), was not developed transparently by allowing input from the state regulatory agencies in the development process, results in conflicts with the compliance timeframes of other regulatory programs for reducing SO₂ emissions, gives inadequate consideration to the costs it would impose on state regulatory agencies, is not technically feasible within the limited time available for states with a significant number of existing SO₂ stationary sources, and provides no opportunity for due process until after EPA has formally disapproved a state implementation plan (SIP).

Background

On June 2, 2010, EPA finalized a revised, more stringent, SO₂ NAAQS¹ that includes a shorter 1-hour averaging period. Within three years of promulgation of a revised NAAQS, CAA Section 110(a)(1) requires states to submit revisions to their SIPs to affirm agency capability to implementation, maintain, and enforce the standard. The deadline for states to submit the SO₂ SIPs is June 2, 2013. CAA Section 110(a)(1) SIPs are called "maintenance" or "infrastructure" SIPs.²

Because the SO₂ NAAQS has existed for many years, states have a long history of effectively regulating SO₂ emissions and already have robust SO₂ regulatory provisions in their state rules and federally-approved SIPs. According to EPA, annual SO₂ emissions have declined 61% since 1990 and annual average SO₂ ambient concentrations have declined 65% from 1990 to 2009.³

¹ 75 FR 35520

² 75 FR 35553

³ <http://www.epa.gov/airtrends/aqtrends.html>

Due to a combination of state and federal programs, these emission reductions and the resulting air quality improvements have continued since 2009 and are projected to continue at approximately the current rate for the next few years, regardless of EPA's implementation strategy for the Section 110(a)(1) SIPs. In light of the experience that states have with the regulation of SO₂ emissions, as well as the clearly demonstrated success the nation has had with reducing SO₂ emissions, the Section 110(a)(1) SIP requirements should be easy to identify and straightforward for states to meet for the revised SO₂ NAAQS.

EPA's Intended Strategy

EPA projected in early 2011 that guidance would be made available "within a few weeks," but there were extensive delays in its release. On September 22, 2011, EPA issued a public review draft which appeared in the *Federal Register* on October 3, 2011.

EPA intends to treat the Section 110(a)(1) SIPs as "substantive attainment SIPs"⁴ by requiring the states to demonstrate through refined dispersion modeling or similar techniques that there are no sources in the entire state that could cause or contribute to a violation of the SO₂ NAAQS based on a source's maximum allowable emissions, or potential to emit, regardless of the actual size of the source or actual emissions. EPA does not intend to allow states to take credit for pollution controls unless they are accompanied by federally-enforceable emission limits for time periods of one hour or less.⁵ For example, coal-fired power plants and industrial boilers with scrubbers and associated emission limits required by their permits or required by federal regulation would not be allowed to take credit for those pollution controls unless they first received federally-enforceable emission limits on a 1-hour basis, or less. The use of Section 110(a)(1) for these new purposes has significant consequences and is a substantial departure from historic EPA policy and practice, deviates from the intent of the CAA, and creates unacceptable complications including deadlines that the agencies likely cannot meet.

EPA expects states to conduct all of this technical analysis, negotiate with sources federally-enforceable permit emission limits for all SO₂ emission rates used in the model, and prepare SIPs that go through public notice and comment, by June 2013. EPA expects the federally-enforceable emission limits to have a compliance date of August 2017. Delays in informing the states of EPA's requirements will make it difficult if not impossible to complete the SIPs by the June 2013 deadline. The consequences to the states for failing to comply with EPA's intended strategy may include, but are not limited to, any combination of SIP disapproval, redesignation to nonattainment, and promulgation of a Federal Implementation Plan (FIP).⁶ Moreover, contrary to longstanding policy, EPA has stated that it intends to require modeling, not actual ambient monitoring data, to make nonattainment designations. Modeling may be necessary and appropriate in some cases to determine specific source contributions and impact to SO₂ monitored ambient concentrations, but such modeling should not be used to designate an area as a nonattainment area.

Concerns with EPA's Intended Strategy

⁴ 75 FR 35553

⁵ SO₂ Implementation Guidance, pages 17 and 21

⁶ 75 FR 35577

Inconsistency with the Clean Air Act

EPA's intended strategy is not consistent with Congress' intent for implementation of the CAA. EPA's statements that states must follow federal guidance and the subsequent delays in the release of that guidance have placed states in a position where there is not enough time to satisfy the guidance that was recently proposed but has not been finalized. If states fail to submit the SIPs on time, or submit the SIPs but fail to satisfy the guidance, EPA could use authority under Sections 110(c) and 110(k) to disapprove a state's SIP and immediately impose a FIP. This is what EPA did in order to justify the federal Cross-State Air Pollution Rule (CSAPR). This is not consistent with Congress' intent for implementation of the CAA as established in Section 101(a)(3).⁷

EPA's intended strategy to use modeling to make nonattainment designations is unprecedented and is a significant departure from historical practice. Only actual ambient air quality data should be used for that purpose. Again, modeling may be necessary and appropriate in some cases to determine specific source contributions and impact to SO₂ monitored ambient concentrations, but such modeling should not be used to designate an area as a nonattainment area.

EPA's intended strategy to require statewide refined dispersion modeling accompanied by federally-enforceable control measures and emission limits in the Section 110(a)(1) SIPs is also unprecedented and is a significant departure from historical practice. Even as recently as 1998, after EPA revised the NAAQS for particulate matter and ozone, EPA affirmed the "required section 110(a) SIP elements are general information and authorities that constitute the 'infrastructure' of the air quality management program, much of which has been in place since the initial SIPs were submitted in response to the Act of 1970."⁸ This is the correct interpretation of the CAA.

Under EPA's new approach, the requirements for areas designated attainment or unclassifiable under the SO₂ NAAQS are more stringent than the requirements imposed by the CAA on areas designated nonattainment. For example, the date by which a state must submit a SIP to EPA could be more than 20 months sooner for the areas designated attainment or unclassifiable compared to the deadline for the areas designated nonattainment even though the requirements are substantively the same and areas subject to confirmed poor air quality should be of highest priority. Areas classified as nonattainment have a deadline to submit a SIP demonstrating compliance with the standard within 18 months after the effective date of the designations.⁹ Designations could be effective in August 2013, or later if EPA delays making the designations. The CAA requires designations within two years of promulgation of a new NAAQS, but it also allows EPA up to one additional year to complete

⁷ "The Congress finds that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of states and local governments."

⁸ Shaver, Sally L., Director, EPA Air Quality Strategies and Standards Division, Memorandum to Air Division Directors, Re-issue of the Early Planning Guidance for the Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) (Apr. 15 - Rev. June 12, 1998)

⁹ Clean Air Act Section 191(a)

the designation process if the agency determines that there is insufficient data available. It is not uncommon for EPA to be late making these designations. Therefore, the SIPs could be due in February 2015, or later. However, under EPA's current proposal to use Section 110(a)(1), states with areas classified as attainment or unclassifiable have a deadline to submit SIPs by June 2013.¹⁰

Another way that EPA's Section 110(a)(1) requirements for areas designated attainment or unclassifiable are more stringent than the requirements imposed by the CAA on nonattainment areas is that the compliance deadline for areas designated attainment or unclassifiable will likely be significantly sooner than the compliance deadline for areas designated nonattainment. Areas classified as nonattainment have a deadline for compliance that is five years after the date that the nonattainment designations are effective.¹¹ Areas classified as attainment or unclassifiable have no specific compliance deadline in the CAA. Nonetheless, EPA has made it clear that it is presuming such areas will have a compliance deadline of August 2017 because that is the presumed compliance deadline for areas that will be designated nonattainment. As stated above, the 110(a)(1) infrastructure SIPs are due in June 2013. However, it is possible that states will not know what the compliance deadline is for nonattainment areas until June 2013, or later. Therefore, it may be difficult if not impossible for states and sources to know what the compliance deadline actually is at the time the decisions have to be made regarding the deadline for federally-enforceable pollution controls and emission limits to take effect. Congress could not possibly have intended such an outcome when it wrote the CAA.

Lack of Transparency

EPA's intended strategy was not developed transparently with a timely public notice and comment process. The use of dispersion modeling in support of these SIPs was not discussed as part of the SO₂ NAAQS proposal and appears for the first time in the preamble to the final SO₂ NAAQS; thus, the southeastern states did not have an opportunity to provide input on approaches to implementing the new SO₂ standard. From June 2010 when the SO₂ NAAQS was finalized until September 2011, EPA did not provide a public comment opportunity on its intended strategy. Only with the recent release of the draft guidance has EPA offered the opportunity for comment but, even now, the process that EPA is using does not require it to respond to any input received during the comment period.

Conflict with Other Programs

EPA's intended strategy conflicts with other regulatory programs for reducing SO₂ emissions. EPA expects states to negotiate with sources federally-enforceable permit emission limits for all SO₂ emission rates used in the model by June 2013. Since the SIP must go through public notice and comment prior to submittal to EPA, this means that the decisions on pollution controls and emission rates must be made no later than February 2013. Many of the sources that are likely to be impacted by the modeling requirements of Section

¹⁰ Clean Air Act Section 110(a)(1)

¹¹ Clean Air Act Section 192(a)

110(a)(1) SIPs are the same sources that are impacted by the Utility MACT¹² and the Industrial Boiler MACT¹³. However, the Utility MACT and Industrial Boiler MACT are not yet final and may not be for many months. Even when they do become final, the corresponding compliance dates will be up to four years after the date of promulgation. These sources may not be in a position to negotiate new permit limits prior to February 2013 because they may not have had a chance to finalize their compliance strategies for the Utility MACT or Industrial Boiler MACT at that time.

In addition, the Utility MACT and Industrial Boiler MACT are not expected to establish 1-hour SO₂ emission limits. Therefore, sources intending to install controls to comply with the Utility MACT or Industrial Boiler MACT are unlikely to know how those controls will impact their SO₂ emissions on a 1-hour basis prior to February 2013. Furthermore, without federally-enforceable emission limitations for SO₂ pursuant to the Utility MACT or Industrial Boiler MACT, states may not have the regulatory authority to establish more stringent, unit-specific emission limitations.

Cost Obligations on States

EPA has given no evidence that it has adequately quantified the costs its intended strategy would impose on state regulatory agencies. For example, in the Final Regulatory Impact Analysis for the SO₂ NAAQS, EPA states on page 6-2:

“Because we are uncertain of the specific actions that State Agencies will take to design State Implementation Plans to meet the revised standard, we do not estimate the costs that government agencies may incur to implement these control strategies.”

EPA has developed the requirements for the design of the SIPs to meet the standard. EPA can estimate these costs and it is critical that EPA does so. Based on what EPA has published in the preamble to the final SO₂ NAAQS and in the draft guidance, the costs for states to develop and submit approvable Section 110(a)(1) SIPs may be extremely high, even if there was adequate time to complete them. These obligations include conducting modeling, reviewing modeling outputs produced by other entities, modifying permits, and developing necessary supporting documentation for the SIPs.

Unrealistic Deadlines

EPA’s intended strategy is not technically feasible for states with a significant number of existing SO₂ stationary sources given the limited time available. First of all, there is still uncertainty as to exactly what EPA expects states to include in their Section 110(a)(1) SIPs, making any significant expenditure of resources a potential exercise in futility. Second, the

¹² National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units

¹³ National Emission Standards for Hazardous Air Pollutants for Major Source Industrial/Commercial/Institutional Boilers and Process Heaters

SIPs are due June 2013 and the CAA does not provide for any extensions of this deadline. As described throughout this discussion paper, EPA's intended strategy uses as its authority the wrong provisions of the CAA and the resultant obligations are simply too onerous to be completed by the June 2013 deadline. Air pollution control agencies are experts at evaluating the resources it would take to do what EPA is considering and it is clear that this work cannot be completed in states with a significant number of existing SO₂ stationary sources in the limited time available.

Lack of Timely Due Process

Shortly after the SO₂ NAAQS was finalized in June 2010, some states requested EPA to reconsider its plans to require states to do statewide refined dispersion modeling, at least partly because EPA had not provided any advance notice that it was planning to do so. In denying their requests for reconsideration, EPA took the position that it is under no obligation to subject the NAAQS implementation strategy to public notice and comment. Similarly, EPA took the position that it is under no obligation to promulgate regulatory requirements regarding NAAQS implementation and that it may include the SIP expectations in non-binding guidance.¹⁴ This position regarding the public participation requirements for guidance is in direct conflict with the recent decision in the U.S. Court of Appeals, D.C. Circuit, Case No. 10-1056 (*Natural Resources Defense Council v. Environmental Protection Agency*).¹⁵ EPA further took the position that states have no legal right to challenge EPA's SIP expectations until after EPA disapproves a SIP.¹⁶

Recommendations

There is still an opportunity to ensure successful implementation of this regulatory program if EPA will take the following course of action. EPA could alleviate nearly all of the concerns raised above if it would abandon the plan for "substantive attainment SIPs" requiring statewide refined dispersion modeling and instead allow states to submit 110(a) SIPs which recognize that the required section 110(a) SIP elements are general information and authorities that constitute the "infrastructure" of the air quality management program. As stated before, modeling may be necessary and appropriate in some cases to determine specific source contributions and impact to SO₂ monitored ambient concentrations, but such modeling should not be used to designate an area as a nonattainment area. Only actual ambient air quality data should be used for that purpose.

These recommendations are entirely consistent with the CAA, and would support needed SO₂ reductions, avoid conflicts with other regulatory programs, and lessen the resource burdens on states and potentially affected sources.

EPA should follow the SO₂ NAAQS implementation strategy as described above. However, if EPA insists on maintaining its current course of action, the following steps should be taken by EPA.

¹⁴ 76 FR 4795

¹⁵ <http://caselaw.findlaw.com/us-dc-circuit/1573112.html>

¹⁶ 76 FR 4795

- EPA should calculate and make available to the public the estimated costs to the states to develop and submit the Section 110(a)(1) SIPs. These cost estimates should include detailed estimates regarding the number and associated costs of modeling runs that will be required and the number and associated costs of permit amendments that will be required to incorporate the modeled emission rates.
- EPA should consider options to reduce the resource burdens on state agencies without sacrificing protection of the environment. These options would allow states to focus their limited resources on the areas with the greatest emissions, on achieving the most environmental improvement, and on protecting the greatest number of people.
 - * EPA should allow the use of ambient air monitoring data in appropriate circumstances, particularly when monitoring networks are robust.
 - * For existing sources with reliable actual emissions data, EPA should allow the use of short-term actual emissions instead of short-term allowable emissions in the model. People breathe actual pollution, not allowable pollution. EPA already has in place detailed emission tracking regulations for large SO₂ sources. If actual emissions increase in the future, additional modeling can be required at that time.
 - * EPA should exempt from the modeling effort existing, low-emitting sources having reliable actual emissions data.
 - * EPA should exempt from the modeling effort sources in counties that have very low SO₂ emissions density.
 - * For emission units that are subject to regulations such as the Utility MACT or the Industrial Boiler MACT, EPA should allow the states to model an hourly actual emissions profile based on the air pollution controls required by those emissions standards.
 - * EPA should only require states to amend permits to impose more stringent SO₂ emission limits where additional emission reductions are necessary beyond what is currently being emitted. In the case where those emission reductions are required by emission regulations with compliance dates prior to the actual attainment date for areas designated as nonattainment under the 2010 SO₂ NAAQS, emission limits beyond those emission regulations provisions should not be required.
- EPA should use the rulemaking process for establishing detailed expectations such as the minimum requirements for the SO₂ Section 110(a)(1) SIPs. This would allow for public notice and comment and due process.
- If EPA insists upon relying on guidance that does not provide due process, EPA should clearly state that the guidance is non-binding on the part of the implementing states, that

other methods may be approvable, and that EPA will base its approvability decision on the language in Section 110(a)(1) and (2) of the CAA.

Summary

In conclusion, EPA should abandon its plan for “substantive attainment SIPs” requiring statewide refined dispersion modeling and instead allow states to submit 110(a) SIPs which recognize that the required section 110(a) SIP elements are general information and authorities that constitute the “infrastructure” of the air quality management program. EPA should not use modeling to designate nonattainment areas. If EPA does not pursue a more reasonable course of action, many states will not be able to complete the Section 110(a) SIPs. EPA has already stated in the *Federal Register* that it is planning “any combination of SIP disapproval, redesignation to nonattainment, and promulgation of a federal implementation plan (FIP).”¹⁷ The inevitable litigation and regulatory uncertainty that this would produce would not be in the nation’s best interests, either environmentally or economically.

¹⁷ 75 FR 35577