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July 14, 2014

Docket No. EPA-HQ-OAR-2013-0711  
Environmental Protection Agency, Mail Code 2822T  
1301 Constitution Avenue NW  
Washington, D.C. 20460  
Mail Code: 2822T

RE: *Comments on the Proposed Data Requirements Rule for the 1-Hour Sulfur Dioxide (SO<sub>2</sub>)  
Primary National Ambient Air Quality Standard (NAAQS)*

On behalf on the Commonwealth of Kentucky, the Division for Air Quality (Division) respectfully submits the following comments in response to the May 13, 2014 Federal Register notice (79 FR 27446) soliciting comments on the proposal referenced above. As noted in the proposed Data Requirements Rule (DRR), EPA previously solicited comments on many of the same issues; thus, the Division is providing and reiterating its previous comments submitted with a cover letter dated December 2, 2011, and located at Docket No. EPA-HQ-OAR-2010-1059-0050. In addition, the Division is also including a June 29, 2012 letter from nine (9) state air pollution control agencies that is located at Docket No. EPA-HQ-OAR-2010-1059-0143.

The Division is greatly concerned with the significant obligations and requirements established by the DRR and imposed on air agencies. As stated in the summary of the proposed DRR: "The EPA is proposing a rule directing state and tribal air agencies (air agencies) to provide data to characterize current air quality in areas with large sources of sulfur dioxide (SO<sub>2</sub>) if such areas do not have sufficient air quality monitoring in place to identify maximum 1-hour SO<sub>2</sub> concentrations." It should be noted that EPA is already provided with the fundamental data requested through this rulemaking.

Regarding the use of the air quality data derived from the DRR, the Division vehemently opposes EPA's intention to be "...used by the EPA in future rounds of area designations for the 1-hour SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS)." The Division's opposition to the DRR and its proposed utilization of processed ambient air quality data is based upon three central reasons: (1) the DRR modifies and revises the statutory provisions established by the Clean Air Act and imposes additional statutory obligations on air agencies; (2) the process detailed by the DRR requires the use of "...separate non-binding draft technical assistance documents..." and creates significant regulatory uncertainty for air agencies; and (3) the proposed rule ignores currently available quality-assured ambient air data measured by state and local air monitoring systems that meets all applicable regulatory requirements.

Section 107(d) of the Clean Air Act clearly details the statutory process for designating all areas as to whether the area meets an applicable NAAQS, does not meet the NAAQS, or if there is insufficient

# Southeastern State Air Pollution Control Agencies

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, West Virginia

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June 29, 2012

Air and Radiation Docket  
Docket ID No. EPA-HQ-OAR-2010-1059  
U.S. EPA Mail Code: 6102T  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

RE: Comments on 1-hour SO<sub>2</sub> NAAQS  
Implementation White Paper

Dear Docket Coordinator:

Thank you for the opportunity to comment on the Environmental Protection Agency (EPA) Office of Air and Radiation's draft white paper on implementation of the 2010 primary 1-hour sulfur dioxide (SO<sub>2</sub>) National Ambient Air Quality Standard (NAAQS). The implementation process is extremely important to the air pollution control agencies in the Southeast.

## Background.

On June 2, 2010, EPA promulgated a revised SO<sub>2</sub> primary standard which established a 1-hour standard of 75 parts per billion. In March and September 2011, EPA provided states with draft guidance on designations and implementation that prompted comments from many states. On April 12, 2012, EPA announced in letters to our state environmental commissioners that 1) EPA intended to move forward with the designation process for those areas with violating monitors, 2) EPA would initiate focused stakeholder forums to help EPA refine their approach to determining whether air quality in a given area is meeting the SO<sub>2</sub> NAAQS, and 3) EPA no longer expected the infrastructure SIP submittals to contain modeling demonstrations showing attainment of the standard in unclassifiable areas.

On May 22, 2012, EPA released a revised white paper to describe a revised approach for implementation of the primary 1-hour SO<sub>2</sub> standard. In particular, the white paper focused on the determination of whether the air quality in a given area currently meets the NAAQS. EPA sought stakeholder input through the aforementioned forums as well as directly to the docket to which this letter is addressed. Our comments and recommendations herein are designed to address key issues from the white paper as well as issues raised during the state, local, and tribal stakeholder forum held on May 31, 2012 in Durham, North Carolina. It is our desire to assist EPA in designing an effective and efficient approach to implementation of the 1-hour SO<sub>2</sub> standard including how to determine if areas are meeting the 1-hour SO<sub>2</sub> NAAQS.

### Nonattainment Designations.

The undersigned support EPA's approach as noted in its April 12, 2012 letter to the state environmental commissioners to designate areas based on violating monitors. Nonattainment designations should always be based on quality-assured monitoring data. There must be ambient data demonstrating that SO<sub>2</sub> levels are above the standard before EPA initiates designation of any area as not attaining the standard. While modeling may be appropriate in evaluating permit applications, siting ambient monitors, and determining whether a monitoring waiver is appropriate (see related information herein), modeling should not be used as the basis for determining and designating the attainment status of an area. We strongly encourage EPA to clearly state in the SO<sub>2</sub> designations to be promulgated in the *Federal Register* that modeling should not be used to determine that air quality in a given area does not meet the NAAQS.

### Preferred Approach for Unclassifiable Areas with Large SO<sub>2</sub> Emission Sources.

We offer the following suggested approach for determining whether an area is meeting the 1-hour SO<sub>2</sub> NAAQS:

#### 1. SO<sub>2</sub> monitoring network requirements.

We recognize that existing SO<sub>2</sub> monitoring requirements were not designed with source specific locations as a primary siting criterion. If EPA decides that additional monitoring including source-oriented monitoring is needed, then the additional requirements should be established through the rulemaking process with an adequate opportunity for public comment. The implementation schedule should consider available resources. With that in mind, a structured phase-in schedule should be developed. The phase-in schedule for source-oriented monitoring should be prioritized based upon an actual emissions threshold.

EPA should establish a requirement for a first phase of monitor installations to be completed by January 1, 2015 and a second by January 1, 2017. The emissions thresholds used in this approach should be established through rulemaking, and should consider anticipated future SO<sub>2</sub> emissions after full implementation of major rules impacting these emissions such as the 2011 Cross- State Air Pollution Rule (CSAPR), the 2011 Mercury and Air Toxics Standards (MATS) Rule, and the reconsidered maximum achievable control technology (MACT) standards for industrial, commercial, and institutional boilers (the Boiler MACT) along with all associated installation and operating costs. Further, as implementing agencies prioritize the placement of monitors consistent with this emissions threshold approach, they should be allowed to consider other factors such as

population and source stack height. This approach would allow states to focus their resources in areas with the highest risk to public health and the largest sources of SO<sub>2</sub> emissions.

States should have flexibility to determine the location of source-oriented monitors as well as the appropriate number of monitors surrounding a given source. States should have the discretion to use modeling, wind rose information, and other tools to help with properly siting the monitors. Based on the results of initial phased-in data collection efforts, states should be given reasonable flexibility to relocate existing monitors to other sites.

Funding for an expanded SO<sub>2</sub> monitoring network was a significant issue discussed during the May 31, 2012 stakeholder forum. EPA should consider in its implementation planning the costs of purchase, installation, maintenance, and operation of all new monitoring equipment associated with revisions to the SO<sub>2</sub> NAAQS. Given the financial challenges of most state environmental agencies, EPA should, at a minimum, fund through Section 103 grants the installation costs for all additional SO<sub>2</sub> monitors required for the new standard.

Some states have noted in recent feedback to EPA that one approach could include requiring sources to install and operate monitors. As a group, we are neutral on the option of sources funding the monitoring although each agency reserves the right to file individual comments. If EPA chooses to advocate monitoring by the sources, states should be given full oversight to validate that monitoring is carried out according to acceptable practices through establishment of a Quality Assurance Project Plan (QAPP). Alternatively, EPA should provide a mechanism for funding to come to the states to support operation of the monitors as part of their own monitoring networks.

If a source-oriented monitoring requirement is established, EPA should also develop an exception to this requirement. Sources should be able to use modeling to avoid the monitoring requirement much like what was allowed in the lead source monitoring program. If a source models at less than a predetermined threshold percentage of the standard, a source-oriented monitor should not have to be installed. The CSAPR, MATS and Boiler MACT rules are expected to reduce SO<sub>2</sub> emissions from the largest sources. Projected actual emissions after subject sources have installed all required emission reduction strategies should be included in the exception analysis to determine if source-oriented monitoring is necessary.

2. Addressing future violations at source-oriented monitors.

EPA should allow a state to address a source-oriented ambient air quality violation using the air program permitting process if a violation is measured in an unclassified area after an ambient monitoring network is expanded. This may be the most efficient way to bring an area back into compliance with the NAAQS and is an appropriate federally-enforceable instrument to use. Given the short term nature of the SO<sub>2</sub> standard and the typical cause and effect relationship between an individual source of SO<sub>2</sub> and a violating monitor, the traditional designation process is not well-suited to efficiently address such violations. If a state does not address a violation in a timely manner, then EPA could proceed with designating an area as nonattainment and follow the SIP development process at that time.

3. Monitoring exit strategy.

EPA should establish a mechanism allowing monitors to be shut down as sources reduce their SO<sub>2</sub> emissions and the ambient concentrations decrease. Currently, for other criteria pollutants, EPA allows monitors to be shut down once the ambient concentrations are 85 percent of the standard. This is an appropriate level for discontinuing the operation of a source-oriented SO<sub>2</sub> monitor. This exit strategy for monitoring should be clearly defined in the monitoring rulemaking.

Preferred Approach for Unclassifiable Areas with No (or Insignificant) SO<sub>2</sub> Emission Sources.

EPA should simplify the approach for addressing unclassifiable areas that fall below a set threshold. During the May 31 stakeholder forum, EPA noted a threshold that would capture 90% of the national SO<sub>2</sub> emissions. If EPA were to require monitoring of ambient air quality around sources with actual emissions greater than or equal to a threshold, then counties having no sources at or above this threshold, and not being impacted by significant emissions from a source in an adjacent county, should be designated attainment or unclassifiable/attainment. Under this scenario, only those counties with sources whose emissions are above the SO<sub>2</sub> threshold should be designated unclassifiable and they should only be maintained in that classification until ambient monitoring determines the area is attaining or violating the SO<sub>2</sub> standard.

Section 110(a) Infrastructure SIP Requirements.

EPA has suggested a reasonable revised approach for the SO<sub>2</sub> infrastructure SIPs that are prescribed by June 2013. The criteria for such SIPs should be identical to the criteria for other criteria pollutant infrastructure SIPs. States should only be required to incorporate in the SO<sub>2</sub> SIPs the procedures that will be used to implement the new standard.

### Modeling.

The SO<sub>2</sub> implementation white paper discussed a hybrid approach for monitoring and modeling. We do not support using modeling to determine whether an area is meeting the NAAQS for designation purposes.

If EPA chooses to require or allow modeling as part of a hybrid approach, EPA should establish in rulemaking the criteria to be used to determine which sources must be modeled (e.g., a certain emissions threshold.) Further, EPA should allow a sufficient timeline for development of modeling protocols, conducting the modeling, establishing on-site meteorological monitoring, and collecting meteorological data if deemed necessary for production of reliable modeling results. Lastly, EPA should provide adequate funding for such efforts.

EPA should also allow the use of appropriate emissions rates. The use of a single maximum allowable emission rate for modeling compliance with short-term averages is unrealistic because it usually does not represent the distribution of hourly emissions on an annual basis. EPA should allow the use of actual emission rates and statistically representative emissions profiles when these data are deemed to be sufficiently reliable. This approach could include the use of continuous emission monitoring system data. EPA should allow sufficient time for states and the regulated community to collect onsite meteorological and ambient air measurements, and to evaluate model performance when necessary. The availability of onsite data is a key factor to ensuring credible model results.

### Conclusions.

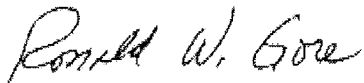
We strongly believe that nonattainment designations should never be based on modeling. Modeling may be appropriate in the permitting process, determining the best location for siting a monitor, or determining whether a monitoring waiver is appropriate, but it should never be used to determine if an area is violating a NAAQS for designation purposes. We strongly encourage EPA to designate counties that are below a set threshold as attainment or unclassifiable/attainment.

The overall costs for implementing the short-term SO<sub>2</sub> standard are significant, regardless of which approach is ultimately followed. EPA should design an implementation strategy that will best use limited state resources to address real air quality issues. EPA should not set up an implementation strategy that mandates the investment of time and energy for investigation and analysis of theoretical problems produced by the model, or unnecessary paperwork that does not achieve real emissions reductions and real air quality improvements.

We appreciate the opportunity to provide comments and recommendations on the implementation of the 1-hour SO<sub>2</sub> standard. We reserve the right to supplement these comments with additional state-specific comments to the docket. We acknowledge the efforts EPA undertook to set up the stakeholder forums and the docket for receiving comments. We are very interested in being active, ongoing stakeholder participants throughout the implementation process. We stand ready to assist EPA with potential concepts prior to its proposing of a final implementation strategy.

If you should have any questions please contact any of the undersigned or John E. Hornback, Executive Director, Southeastern States Air Resource Managers, Inc. The latter may be reached at 404-361-4000 or hornback@metro4-sesarm.org.

Sincerely,



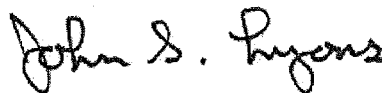
Ronald W. Gore, Chief  
Alabama DEM, Air Division



Michael P. Halpin, Director  
Florida DEP, Division of Air Resource  
Management



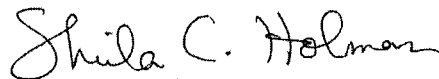
James A. Capp, Chief  
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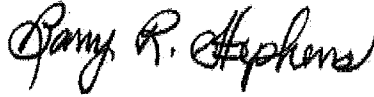
Maya Rao, Chief  
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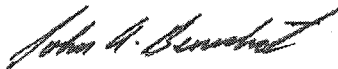
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December 2, 2011

U.S. Environmental Protection Agency  
Air and Radiation Docket, Mailcode 6102T  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OAR-2010-1059

Re: *Federal Register* Vol. 76, No. 61098, Guidance for 1-hour SO<sub>2</sub> NAAQS SIP Submissions

On behalf of the Commonwealth of Kentucky, the Division for Air Quality (Division) respectfully submits the following comments in response to the October 3, 2011 *Federal Register* notice soliciting comments on the "Guidance for 1-Hour SO<sub>2</sub> NAAQS SIP Submissions", as referenced above (Please see Attachment A). The Division appreciates the opportunity to comment on the U.S. EPA's draft guidance document and urges U.S. EPA to make significant, necessary changes as a result of reviewing comments from state air pollution control agencies, including those submitted by the Division. With limited budgetary and personnel resources, the economic burden to comply with this rule as proposed is a significant concern and may be detrimental to the Division's ability in fulfilling its statutory obligations under the Clean Air Act and Kentucky Revised Statute 224.

Although comments related to this issue are included in Attachment A, the Division emphasizes its disapproval of using modeling demonstrations for the designations of a NAAQS. The hybrid approach of requiring both ambient air monitoring data and a theoretical modeling demonstration to determine attainment status is unprecedented. Finalizing the hybrid approach to demonstrate NAAQS compliance without the input from states or the possibility of state review of implementation guidance results in an impossible timeframe for the Division to complete and submit a substantive attainment SIP. This approach creates overwhelming economic burdens and hardships for state and local air quality control agencies during a difficult time with limited resources.

As mentioned, many of the concerns expressed by the Division are shared by several state air pollution control agencies. In a letter dated November 21, 2011, ten (10) chief administrators of environmental agencies in their respective state conveyed a series of concerns and recommendations related to this rulemaking. The referenced letter and accompanying technical document are also hereby submitted and included as Attachment B.

Again, the Division appreciates the opportunity to comment on the U.S. EPA's "Guidance for 1-Hour SO<sub>2</sub> NAAQS SIP Submissions." If you have any questions regarding the Division comments being provided, please contact Ms. Andrea Smith at (502) 564-3999 or [andrea.smith@ky.gov](mailto:andrea.smith@ky.gov).

Sincerely,

John S. Lyons  
Director

Enclosures

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ATTACHMENT A

Docket ID No. EPA-HQ-OAR-2010-1059  
*Federal Register* Vol. 76, No. 61098, Guidance for 1-hour SO<sub>2</sub> NAAQS SIP Submissions  
Comments from the Kentucky Division for Air Quality

Comments from the Kentucky Division for Air Quality (Division)

**EPA COMMENT:**

**Schedule for implementation of the 1-hour SO<sub>2</sub> NAAQS**

Page 7, the guidance states:

*June 2013: All states submit CAA section 110(a)(1)-(2) SIPs. SIPs address PSD and infrastructure requirements, and provide for implementation and maintenance of the 1-hr NAAQS in all areas throughout the state, particularly in areas initially designated unclassifiable and attainment. SIPs for unclassifiable areas would rely on refined modeling and any monitoring that demonstrates attainment and maintenance of the new SO<sub>2</sub> NAAQS as expeditiously as practicable, which EPA anticipates should be no later than the attainment deadline for areas initially designated nonattainment. SIPs should contain any additional federally enforceable control measures necessary to ensure maintenance of the NAAQS. Attainment demonstration SIPs for nonattainment areas have a separate deadline.*

**Division's Response:**

From a state air quality regulatory agency's perspective, a deadline of June 2013 is impractical for two specific reasons, conducting refined modeling without final guidance and determining appropriate, necessary federal control measures. First, EPA should re-evaluate the hybrid approach for attainment classifications. If EPA is unwilling to revise the policy position of requiring modeling for attainment designations, EPA should then strongly reconsider the deadline based on the limited amount of resources available to states to perform the initial modeling demonstration, negotiate and modify permits, and finalize the concluding modeling demonstration ensuring compliance with the standard.

As mentioned, determining the appropriate and necessary federal control measures that may or may not be applicable August 2007 is an impossible date for state agencies to incorporate into their respective SIPs. As you are aware, the final effective date of the "Boiler MACT" has been delayed until such time as judicial review is no longer pending or until the EPA completes its reconsideration of the rules, whichever is earlier. The regulatory uncertainty associated with this delay, as well as other uncertainties associated with the Cross-State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS) rule, prevents states from including those particular significant federally-enforceable control measures into the SIPs.

Additionally, placing the same SIP requirements on unclassifiable areas as those in non-attainment is overly burdensome, potentially preventing economic growth with little or no environmental protection for the preservation of existing clean air resources.

**EPA COMMENT:**

**Section 110(a)(1) and (2) NAAQS maintenance/infrastructure elements**

Page 8 and 9, the guidance states:

*...Where sources of SO<sub>2</sub> are determined to cause or contribute to NAAQS violations, states should include in the 110(a)(1) SIPs sufficient permanent and enforceable control measures to ensure the NAAQS is attained and maintained as expeditiously as practicable.*

**Division's Response:**

As stated previously, EPA's expectations for states to complete refined modeling is unreasonable, especially considering that the guidance is "draft" and not "final". Furthermore, it is impractical to have federally-enforceable emissions limits in permits and a modeling demonstration indicating compliance by June 2013. Please refer to the comment above. If EPA continues to apply the policy decision to require modeling demonstrations pursuant to Section 110(a)(1) of the CAA, the Division finds it more appropriate to include a timeline in the infrastructure SIP submittal that details the modeling plan that will be utilized to demonstrate compliance before the 2017 date.

**EPA COMMENT:**

Page 9, the guidance states:

*We expect that states would focus performance of attainment demonstration modeling on areas with larger sources (e.g., those sources emitting over 100 tons per year (tpy) of SO<sub>2</sub>), and any other sources that we anticipate to cause or contribute to a violation to determine compliance with the new SO<sub>2</sub> NAAQS.*

**Division's Response:**

Through final rulemaking, EPA should specify whether the sources emitting over 100 tons per year is based on actual or potential emissions here and throughout the document.

**EPA COMMENT:**

**Section 110(a)(1)-(2) SIP submission**

Page 10, the guidance states:

*Section 192 requires nonattainment areas to achieve the 1-hour SO<sub>2</sub> NAAQS as expeditiously as practicable, but no later than 5 years after designation, which EPA expects to be by no later than August 2017. Section 110(a)(1), unlike section 192, does not specify a deadline by which states are required to show when they have met the requirements to implement, maintain, and enforce a NAAQS. However, EPA believes it is generally reasonable for attainment to be achievable in unclassifiable areas within the same five year timeframe as is mandated for nonattainment areas.*

**Division's Response:**

Oddly, EPA requirements for areas designated attainment or unclassifiable under the SO<sub>2</sub> NAAQS are more stringent than the requirements imposed by the CAA on areas designated nonattainment. The Division agrees that areas classified as attainment or unclassifiable have no specific compliance deadline in the CAA and should not be subject to more stringent requirements than nonattainment areas. Furthermore, EPA has provided no evidence that it has adequately considered the economic burden and hardship this strategy would impose on state regulatory agencies.

**EPA COMMENT:**

Page 10, the guidance states:

*In order to demonstrate attainment and maintenance, SIPs for unclassifiable areas, just as for nonattainment areas, should include enforceable emissions limitations, timetables for compliance, appropriate testing/reporting to assure compliance, and include air quality modeling for SO<sub>2</sub> sources showing that the SIP-adopted emissions limits are consistent with attainment of the 1-hour NAAQS. EPA believes it is reasonable to expect states to demonstrate, at a minimum, that major SO<sub>2</sub> sources (≥ 100 tpy) are not causing or contributing to violations of the 1-hour SO<sub>2</sub> NAAQS.*

**Division's Response:**

In an attempt to comply with this guidance, re-opening existing operating permits to include 1-hr SO<sub>2</sub> emission limitations is not practical. This guidance should allow for the federally-enforceable emissions limitations to be included in a federally-enforceable operating permit when the permit is opened for renewal or revision. Furthermore, the guidance recommends a demonstration for major SO<sub>2</sub> sources (>100 tpy) at a minimum (major source status is based upon potential to emit); however, Section IV. B (pg 16) suggests focusing on sources with emissions in excess of 100 tpy (actual emissions). It is unclear whether the threshold should be based on actual or allowable emissions. If EPA continues applying the policy of requiring modeling demonstrations for attainment designations, the Division recommends the use of actual emissions greater than 100 tpy as an initial step to evaluate the areas of greatest concern and to reduce the workload due to limited resources. Kentucky cannot regulate by policy and without rulemaking and a consequent SIP revision, the Division would not have the authority to include federally-enforceable emission or operating limits where there is no specific federal regulation requiring the limitation.

**EPA COMMENT:**

Page 11, the guidance states:

*A limited qualitative assessment based on the results of preliminary modeling of sample facilities indicates that effective SO<sub>2</sub> source control, such as the installation of SO<sub>2</sub> scrubbers, should generally suffice for areas to meet the 1-hour SO<sub>2</sub> NAAQS (see Brode 2010b). Exceptions could include unique sources with specific characteristics that contribute to higher ambient impacts (short stack heights, complex terrain, etc.).*

**Division's Response:**

The Division agrees that EPA has conducted limited qualitative assessment of preliminary modeling and would suggest EPA to perform more comprehensive modeling to gain an appreciation and understanding of the technical challenges states will encounter with limited resources. Several comprehensive modeling demonstrations may establish a more appropriate de minimis level and also streamline the modeling approach.

In addition, if the installations of scrubbers generally suffice for areas to meet the 1-hour SO<sub>2</sub> NAAQS, then those units and units with similar emission profiles should be exempt from the modeling demonstration. Please note that Brode 2010b is not listed in section 12, References.

**EPA COMMENT:**

Page 12, the guidance states:

*The section 110(a)(1) SIP should also contain the following elements: (1) an attainment emissions inventory; (2) a control strategy, as appropriate; (3) a maintenance demonstration using an EPA-approved air quality dispersion model, as appropriate; (4) a contingency plan; and (5) a plan for verification of continued attainment of the standard.*

**Division's Response:**

The SIP requirements established through this guidance appear to expand and modify the intent of Section 110(a)(1) of the CAA. Please note that Kentucky is prohibited from expanding or modifying the statutory requirements pursuant to Kentucky Revised Statute (KRS) 13A.130 (1), "An administrative body shall not by internal policy, memorandum, or other form of action: (a) Modify a statute or administrative regulation; (b) Expand upon or limit a statute or administrative regulation; ..."

**EPA COMMENT:**

Page 12, the guidance states:

*The state should develop an accurate attainment inventory to identify the level of emissions in the area sufficient to attain the 1-hour SO<sub>2</sub> NAAQS. This inventory should be consistent with EPA's most recent guidance on emissions inventories currently available, and should include the emissions for the time period associated with the modeling and monitoring data showing attainment.*

**Division's Response:**

Guidance on emission inventories for various attainment and maintenance plans vary depending on the pollutant, EPA regional office, and in some cases area-specific issues regarding pollutant chemistry and meteorology. EPA should define the specific requested requirements that are necessary for inventory submittal and approval.

**EPA COMMENT:**

Page 13, the guidance states:

*With representative and appropriate meteorological and other input data, refined dispersion models are able to characterize air quality impacts from the modeled SO<sub>2</sub> sources across the domain of interest on an hourly basis with a high degree of spatial resolution, overcoming the limitations of an approach based solely on monitoring. By simulating plume dispersion on an hourly basis across a grid of receptor locations, dispersion models are able to estimate the detailed spatial gradients of ambient concentrations resulting from SO<sub>2</sub> emission sources across a full range of meteorological and source operating conditions. To capture such results on a monitor would normally require a prohibitively expensive air quality monitoring network. Further, as we have observed in prior actions (see., e.g., 43 FR 45993, 45997, 46000-03 (October 5, 1978)), monitoring data would not be adequate to demonstrate attainment if sources are using stacks with heights that are greater than good engineering practice (GEP), or other prohibited dispersion techniques, since in those cases monitoring would implicitly reflect credit for such practices in contravention of section 123 of the CAA and our regulations at 40 CFR sections 51.100 and 51.118.*

**Division's Response:**

The comment above appears to directly conflict with the guidance EPA provided relative to PSD modeling, Memorandum from Anna Marie Wood, Air Quality Policy Division, to EPA Regional Air Division Directors, "General Guidance for Implementing the 1-hour SO<sub>2</sub> National Ambient Air Quality Standard in Prevention of Significant Deterioration Permits, Including an Interim 1-hour SO<sub>2</sub> Significant Impact Level" (August 23, 2010):

*Section 51.100(hh)(2)(v) provides that identified techniques that increase final exhaust gas plume rise are not considered prohibited dispersion techniques pursuant to section 51.100(hh)(1)(iii) "where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year." Thus, proposed modifications that experience difficulty modeling compliance with the new 1-hour SO<sub>2</sub> NAAQS when relying on BACT or an air quality-based emissions limit alone may permissibly consider techniques to increase their final exhaust gas plume rise consistent with these provisions.*

Kentucky acknowledges that refined dispersion models are able to characterize air quality impacts when representative and appropriate meteorological and other input data are used; however, this guidance recommends using GEP stack heights and allowable emission rates which in turn generate model concentrations that are not truly representative of the modeling domain. Furthermore, many facilities run well below their allowable limits. In an effort to reduce the burden placed on state air quality agencies before the June 2013 deadline, the suggested approach is to include a timeline in the infrastructure that details the modeling plan that will demonstrate compliance before the 2017 compliance date. This approach would allow the time necessary for sources to collect onsite meteorological data to avoid significant model performance degradation created by using non-representative NWS meteorological data.

Alternatively, EPA could abandon its plan for “substantive attainments SIPs” requiring statewide refined dispersion modeling all together. In addition, if federal regulations such as the industrial boiler MACT, MATS rule, and CSAPR are challenged or postponed, the permit limits that reflect the additional controls that could be in place by the compliance date may not be effective by June 2013 and would not be adequately accounted for in the 2013 modeling demonstration. Further, the Division would not have the authority to include enforceable emission or operating limits where there is no specific federal regulation requiring the limitation and since the industrial boiler MACT and the MATS rule do not set specific SO<sub>2</sub> limitations, the Division would not have legal authority to impose such limitations without a SIP revision.

**EPA COMMENT:**

**Section 110(a)(1) SIPs**

Page 16, the guidance states:

*EPA recognizes the resource burden potentially involved in conducting refined air quality modeling for every source of SO<sub>2</sub> emissions. As one example, states might focus their limited modeling resources on the largest sources of SO<sub>2</sub>, such as those sources that are emitting at least 100 tpy, in recognition that these sources emit nearly all the emissions of SO<sub>2</sub> (just over 99% of all SO<sub>2</sub> emissions in 2005 from point sources in the country). States might also focus on those sources located in areas where there is the highest potential for citizen exposure to elevated ambient SO<sub>2</sub> levels. Therefore, EPA is seeking comments and recommendations on reasonable approaches to determining which sources should be modeled.*

**Division's Response:**

As discussed previously, EPA should abandon the policy of classifying attainment areas for the 1-hour SO<sub>2</sub> NAAQS through air dispersion modeling. However, if EPA is unwilling to modify its policy regarding modeling for attainment designations, EPA should establish a reasonable approach to determine which sources should be modeled. As offered as an example, states should only be required to model sources actually emitting at least 100 tpy. Additionally, EPA should declare areas with combined actual annual emissions less than 100 tpy of SO<sub>2</sub> as “attainment”.

**EPA COMMENT:**

Page 17, the guidance states:

*Given the influence of stack parameters and other factors on the concentrations that result from a given quantity of emissions, EPA recognizes that an approach that only considers sources emitting more than a specified emissions threshold may in some cases overlook sources that have lower emissions but nevertheless have the potential to cause or contribute substantially to violations of the standard. EPA also recognizes that EPA and the states have substantial experience with modeling SO<sub>2</sub> concentrations, and so EPA and the states have substantial experience in judging the kinds of circumstances that might be expected to have relatively high SO<sub>2</sub> concentrations. This suggests the possibility of hybrid approaches in which the state addresses all sources emitting more*

*than a given threshold, and in addition addresses sources that by reasonable judgment might be expected to contribute to ambient SO<sub>2</sub> concentrations above the NAAQS. An example of this approach would be for a state to model all sources with emissions of at least 100 tpy as well as all smaller sources that are judged to be in circumstances that might create high ambient SO<sub>2</sub> concentrations, such as low stack heights, building downwash, complex terrain, or clustering of multiple sources. States may wish to also place priority on conducting additional analyses in areas where significant population exposure to elevated ambient SO<sub>2</sub> may be occurring.*

**Division's Response:**

EPA initially suggests states to focus on sources with emissions in excess of 100 tpy to reduce workload. EPA then suggests states to evaluate other sources that have circumstances that might create high ambient SO<sub>2</sub> concentrations. The Division suggests EPA to establish a de minimis level, as done in the past (e.g. PSD) to reduce the burden of evaluation on states with limited resources.

**EPA COMMENT:**

Page 17, the guidance states:

*However, any source that is modeled at less than its PTE for purposes of demonstrating attainment of the standard should receive a SIP enforceable emission or operating permit limit that is consistent with the modeled levels.*

**Division's Response:**

To reiterate, re-opening existing permits to add 1-hr SO<sub>2</sub> limitations before the attainment demonstration is due is not practical. This guidance policy should allow for the condition to be added when the permit is up for renewal or revision, consistent with 40 CFR Part 70. Please note that the Division would not have the authority to include federally-enforceable emissions or operating limitations where there is no specific federal regulation requiring the limitation.

**EPA COMMENT:**

Page 18, the guidance states:

*An approvable CAA section 110(a)(1) SIP would need to appropriately and accurately assess the degree that sources throughout the state cause or contribute to violations of the SO<sub>2</sub> NAAQS, but it might not be necessary for states to address all sources of SO<sub>2</sub> in an area in order to demonstrate attainment and maintenance of the NAAQS. However, any source that is modeled at less than its PTE for purposes of demonstrating attainment of the standard should receive a SIP enforceable emission or operating permit limit that is consistent with the modeled levels. These decisions, of course, should be made by the state on a case-by-case basis depending on the attainment needs of the affected area(s). We are seeking input on approaches such as those discussed above for states to identify appropriate threshold levels, as well as any other emissions-related parameters, or guiding principles, that may help states and EPA better focus on the sources of SO<sub>2</sub> most*



*likely to cause or contribute to a violation of the new 1-hour SO<sub>2</sub> NAAQS and impact the most populated areas. For example, we welcome any supportable information on the configurations and operating characteristics for typical SO<sub>2</sub> sources that might be most likely to cause a violation (e.g., uncontrolled coal-fired power plants greater than 250MW with stack height less than 50 feet). Conversely, we would also appreciate supportable information on the configurations and operating characteristics for SO<sub>2</sub> sources that are not likely to cause a violation.*

**Division's Response:**

EPA is calling for supporting information to develop thresholds levels for particular operating characteristics to help states focus on the sources most or least likely to cause or contribute to a violation. In addition, EPA should call for information to support not modeling an area (e.g. a county) under a particular threshold. A demonstration of the SO<sub>2</sub> emissions inventory of all the sources within that area are below a threshold as a whole or individually should be adequate for the demonstration. Furthermore, the facilities and areas selected to be modeled are assumed to have the highest potential to cause a violation of the standard, if no violations are modeled then any areas outside of these domains should be logically assumed to be in attainment without further demonstration.

In attempt to provide "supportable information on the configurations and operating characteristics for SO<sub>2</sub> sources that are not likely to cause a violation", the Division directs EPA to review its Memorandum from Anna Marie Wood, Air Quality Policy Division, to EPA Regional Air Division Directors, "General Guidance for Implementing the 1-hour SO<sub>2</sub> National Ambient Air Quality Standard in Prevention of Significant Deterioration Permits, Including an Interim 1-hour SO<sub>2</sub> Significant Impact Level" (August 23,2010):

*The definition of "dispersion technique" at 40 CFR 51.100(hh) (1)(iii) describes techniques that are generally prohibited, but which do not apply with respect to the exemption for SO<sub>2</sub>. Accordingly, it is permissible for eligible SO<sub>2</sub> sources to make adjustments to source process parameters, exhaust gas parameters, stack parameters, or to combine exhaust gases from several existing stacks into one stack, so as to increase the exhaust gas plume rise. It is important to remember that the exemption applies to sources that have facility-wide allowable SO<sub>2</sub> emissions of less than 5,000 tpy resulting from the increase in final exhaust gas plume rise. Thus, proposed modifications should not base their eligibility to use dispersion on the amount of the proposed net emissions increase, but on the total source emissions of SO<sub>2</sub>.*

*The EPA does not recommend or encourage sources to rely on dispersion to demonstrate compliance with the NAAQS; however, we acknowledge the fact that certain SO<sub>2</sub> sources may legally do so. For example, while increasing stack height is a method of dispersion, EPA's rules allow use of that approach to the extent the resulting height meets EPA's requirements defining "good engineering practice (GEP)" stack height. See 40 CFR 50.100(hh) (1)(i), 50.100(ii)(1)-(3).*

**EPA COMMENT:**

Page 18, the guidance states:

*If no emissions reductions are needed to ensure attainment and maintenance of the 1-hour SO<sub>2</sub> NAAQS, the SIP should indicate the mechanisms that the state will use to ensure the area remains in attainment.*

**Division's Response:**

If no emissions reductions are needed to ensure attainment and maintenance, then there is no need to indicate the mechanisms that the state will use to ensure that area remains in attainment. Any major facility that proposes to move into the area will have to perform PSD modeling demonstrating that the proposed project will not cause or contribute to a violation of the NAAQS, which should satisfy this requirement. EPA should remove this statement from the guidance.

**EPA COMMENT:**

Page 18 and 19, the guidance states:

*In making the showing that the improvement in air quality (or already acceptable air quality) is due to permanent and enforceable measures, the state should estimate the percent emission reductions achieved from national, regional, and local control measures.*

**Division's Response:**

This demonstration will be limited to point sources and will include source specific reductions. There is no need to estimate the percent of reductions as well. The Division does not see any benefit in adding this extra work to an already insurmountable workload under the current time constraints.

**EPA COMMENT:**

Pages 19 and 20, the guidance states:

*This rule does not specify plant-specific emission limits. Instead, this rule establishes caps on total emissions from the set of affected facilities in each state, and provides for issuance of a number of emissions allowances in each state corresponding to the applicable caps. It allows trading of allowances, so that each source may have more or less emissions so long as the source emits no more than the number of allowances it holds either through issuance or through purchase. Thus, the rule does not require that a specific degree of emissions control will be achieved at any particular facility. Nevertheless, the emission caps are such that the rule will result in substantial additional control of SO<sub>2</sub> and NO<sub>x</sub> emissions. This control is mandated by 2012 and 2014 (representing start dates for two stages of caps under CSAPR), which is well within expected attainment timeframes for the 1-hour SO<sub>2</sub> NAAQS. EPA expects these controls generally to suffice for achieving attainment. Therefore, for such facilities, negotiation*

*and establishment of suitable emission limits will be far simpler than would be the case if the state and the company had to negotiate whether control equipment was necessary. Furthermore, the state has the option to negotiate with its sources to pursue a distribution of controls under CSAPR that optimizes the achievement of attainment of the SO<sub>2</sub> standard. For example, the state has the option under CSAPR to revise the allocation of allowances to mirror the distribution of emissions that best serves the purpose of attaining the SO<sub>2</sub> standard<sup>9</sup>.*

**Division's Response:**

The Division is concerned that the time and resources to coordinate and negotiate limits with stakeholders as well as perform adequate modeling to demonstrate compliance is unachievable by the June 2013 date. Further, clarification needs to be made on which year's allocation limits should be used in the model. Finally, by reading this language and comparing the Courts remand without vacating the CAIR, it appears that CSAPR suffers the same fatal flaws of CAIR that led to its ultimate remand.

**EPA COMMENT:**

Page 20, the guidance states:

*EPA expects these controls generally to suffice for achieving attainment. Therefore, for such facilities, negotiation and establishment of suitable emission limits will be far simpler than would be the case if the state and the company had to negotiate whether control equipment was necessary.*

**Division's Response:**

Since additional controls as a result of the CSAPR are effective in achieving attainment, then those units and units with similar emission profiles should be exempt from the modeling demonstration. The guidance should account for national measures to reduce the resource burden to states. One option would be to establish a post-control de minimis threshold.

**EPA COMMENT:**

Page 21, the guidance states:

*For SO<sub>2</sub> controls to be creditable for SO<sub>2</sub> NAAQS planning purposes, they need to apply to the source as enforceable 1-hour SO<sub>2</sub> emission limits on the specific source. The controls and associated 1-hour SO<sub>2</sub> emissions limits would need to become permanent and enforceable under the SIP, even if they might not be required to be so under the CSAPR.*

**Division's Response:**

As stated previously, re-opening existing permits to add 1-hr SO<sub>2</sub> limitations before the attainment demonstration is due is not practical. This guidance should allow for the condition to be added when the permit is up for renewal or revision and be consistent with 40 CFR Part 70.

To reiterate, the Division would not have the authority to include enforceable emission or operating limits where there is no specific federal regulation requiring the limitation.

**EPA COMMENT:**

Page 22, the guidance states:

*... However, as promulgated, the Industrial Boilers MACT does not set specific limits on emissions of SO<sub>2</sub>. Therefore, to rely upon SO<sub>2</sub> reductions resulting from this rule to assure attainment and maintenance of the 1-hour SO<sub>2</sub> NAAQS, states would need to also establish 1-hour SO<sub>2</sub> emission limits to assure that any control measures used to comply with MACT requirements are designed and/or operated to provide the necessary control of SO<sub>2</sub> emissions as well. If the MATS Rule is promulgated similarly, i.e., it sets emission limits for HAPs but does not set specific 1-hour SO<sub>2</sub> emission limits, then states would need to set 1-hour SO<sub>2</sub> emission limits for these facilities as well, to the extent such limits are needed to assure attainment and maintenance of the 1-hour SO<sub>2</sub> NAAQS.*

**Division's Response:**

If federal regulations are challenged or postponed, the permit limits that reflect the additional controls that could be in place by the 2017 compliance date may not be set nor adequately accounted for in the 2013 modeling demonstration. Re-opening existing permits to add 1-hr SO<sub>2</sub> limitations before the attainment demonstration is due is not practical. This guidance should allow for the condition to be added when the permit is up for renewal or revision and should be consistent with 40 CFR Part 70. Again, the Division would not have the authority to include enforceable emission or operating limits where there is no specific federal regulation requiring the limitation. Since the Industrial Boiler MACT and the MATS do not set specific SO<sub>2</sub> limitations, the Division would not have legal authority to impose such limitations without a source-specific SIP revision.

**EPA COMMENT:**

Page 23 and 24, the guidance states:

*Since SO<sub>2</sub> control measures are based on what is directly and quantifiably necessary to attain the SO<sub>2</sub> NAAQS, we expect that it would be unlikely for an area to implement the necessary and appropriate emission controls yet fail to attain and maintain the NAAQS.*

**Division's Response:**

It is unclear how EPA came to this conclusion in the absence of a quantitative dispersion modeling analysis. EPA should disclose the information that leads them to this conclusion. Furthermore, if EPA believes that facilities that have appropriate control measures are unlikely to cause or contribute to a NAAQS violation, it should exempt those emission units and units with similar profiles from the modeling analysis. Moreover, EPA should provide states with a catalog indicating the specific "necessary and appropriate emission controls" to which they refer.

**EPA COMMENT:**

Pages 24 and 25, the guidance states:

*States should provide an indication of how they will track the progress of the section 110(a)(1) plan. In most cases, tracking compliance with applicable emission limits, along with tracking whether background concentrations are changing, should suffice for verifying continued attainment. We expect that a need for more thorough tracking of emissions and air quality would arise mainly in areas with multiple area sources, areas with sources for which emissions are difficult to track, and areas where the success of the attainment plan may be particularly uncertain.*

**Division's Response:**

This requirement should be removed for attainment and unclassifiable areas. There is no requirement in the CAA or in existing guidance for verification of continued compliance. The modeling demonstration for these areas will be conservative, background monitoring data is unavailable for many areas, and major and conditional major sources are inspected biannually for compliance. New PSD/NSR sources are required to demonstrate that their projected emissions do not cause or contribute to a NAAQS violation as well.

**EPA COMMENT:**

**Redesignation to attainment for areas designated as unclassifiable**

Page 25, the guidance states:

*The CAA does not clearly specify the conditions for redesignating an area from "unclassifiable" to "attainment." CAA section 107(d)(3)(E) only addresses conditions for redesignating areas from "nonattainment" to "attainment." Nonetheless, EPA believes that for the 1-hour SO<sub>2</sub> NAAQS the criteria closely derived from section 107(d)(3)(E) would be appropriate. Accordingly, for an area initially designated as "unclassifiable" to be redesignated as attainment, EPA expects to apply the following criteria to meet the principles of CAA section 107(d)(3): (1) EPA has determined that the area is attaining the NAAQS; (2) the area has a fully approved section 110(a)(1) SIP; (3) EPA has determined that the attainment-level air quality in the affected area is attributable to any necessary permanent and enforceable emissions measures; (4) the area has met all of the requirements of section 110 of the CAA; and (5) the state has verified implementation of the approved 110(a)(1) SIP control measures.*

**Division's Response:**

The Division strongly disagrees with this approach of requiring the same conditions for redesignating areas from unclassified to attainment as would be for redesignating areas of nonattainment to attainment. It is not appropriate, and most likely contrary to the CAA, to require the same requirements to redesignate an unclassifiable area as for a nonattainment area. This approach is a paramount policy shift by EPA on how to treat unclassified areas; EPA has historically treated unclassified areas the same as attainment areas.

**EPA COMMENT:**

Page 26, the guidance states:

*The justification for redesignation from unclassifiable to attainment would need to include modeling information except where modeling is shown to be inappropriate (if, for example, sources are poorly characterized) or unnecessary (if an unclassifiable area is found to have only de minimis emissions).*

**Division's Response:**

Based on 2010 emissions data, there are 27 counties in Kentucky with actual SO<sub>2</sub> emissions greater than 100 tpy. Over 99% of Kentucky's SO<sub>2</sub> emissions come from sources that emit greater than 100 tpy. Kentucky agrees with EPA in that the remaining 1% of emissions would be accounted for in monitoring or regional background levels. Kentucky suggests that EPA establish a *de minimis* level regarding area evaluation and monitor location. If an entire county has actual emissions less than 100 tpy, then no modeling and no monitoring should be necessary to deem the area as "attainment." An emissions inventory of all SO<sub>2</sub> sources within the county showing historical emissions data (i.e. maximum actual emission totals per county from 2007-2010) should suffice. If a demonstration can be made of counties with significantly higher emission rates being below the standard, it stands to reason that lower emitting counties would also be below the standard and not require any further analysis.

**EPA COMMENT:**

Page 26, the guidance states:

*In making this showing, the state should provide reliable estimates of the percent reduction in SO<sub>2</sub> emissions from national, regional, and local measures that have been implemented in the affected area.*

**Division's Response:**

EPA should remove this requirement. It provides no additional insight for unclassified areas that are being redesignated as attainment. Furthermore, many areas will not require any reductions to meet the requirements for redesignation to attainment.

**EPA COMMENT:**

**Appendix A - Modeling Guidance for Nonattainment Areas and Section 110(a)(1) Plans**

Page A-1, the guidance states:

*In the final rule preamble, EPA outlined a possible analytic approach to determining compliance with the new NAAQS that would include the use of both modeling and monitoring.*

**Division's Response:**

EPA fails to address what role and its significance, if any, monitoring will play in the NAAQS compliance demonstration. Other than background monitoring for use in the modeling demonstration, EPA should give examples of situations where monitoring will play a part, or be relied upon solely, in the "analytic approach to determining compliance with the new NAAQS." The Division determines that monitoring data alone should be used to demonstrate compliance with the new NAAQS and should also be used to validate modeling performance.

**EPA COMMENT:**

Page A-3, the guidance states:

*For SIP development under the 1-hour SO<sub>2</sub> primary NAAQS, AERMOD should be used unless use of an alternative model can be justified (Section 3.2, Appendix W), such as the Buoyant Line and Point Source Dispersion Model (BLP).*

**Division's Response:**

Guidance is necessary on how to merge Buoyant Line and Point (BLP) modeling with AERMOD modeling or whether this would be a recommended method for modeling certain source categories. BLP modeling is dated (i.e. can only have one hundred receptors at any given time). Issues arise when it comes to merging the BLP and AERMOD data and also the number of BLP runs that are needed to sufficiently cover the modeling domain at fine receptor grid resolutions. Furthermore, BLP does not have an output in ppb and doesn't have a post-processor available that gives a concentration per receptor per day. Kentucky recommends EPA to integrate BLP modeling algorithms into AERMOD.

**EPA COMMENT:**

Page A-4, the guidance states:

*The sources to be explicitly modeled within each area should include the larger sources and others that potentially contribute to violations for the state to have the greatest flexibility in determining controls across sources, as necessary, to attain the NAAQS.*

**Division's Response:**

The Division does not define or "redefine" a source by determining what the best control technology is for its emissions. Kentucky evaluates BACT analysis when required to determine the best available control technology determined by the source. EPA should consider revising this statement.

**EPA COMMENT:**

Page A-4, the guidance states:

*If there are still predicted violations of the NAAQS, continue to assess additional controls until no predicted violations occur.*

**Division's Response:**

If a facility cannot meet the NAAQS with reasonable control measures, it appears that emission limits beyond the control efficiency must be set. Setting limits beyond the best available control technology will retard, if not completely eliminate, manufacturing production and economic growth. Considering the conservative nature of modeling demonstrations, the Division recommends that in the case of a residual NAAQS violations post reasonable control measures EPA should develop a monitoring approach that would ensure compliance with the new NAAQS.

**EPA COMMENT:**

Page A-6, the guidance states:

*It is reasonable to initially focus on the most significant sources of SO<sub>2</sub> emissions, e.g., sources emitting more than 100 tons (maximum allowable)<sup>18</sup> per year.*

**Division's Response:**

Here the guidance indicates that the initial focus should be on sources that emit more than 100 tpy (maximum allowable). The word "emit" indicates actual emissions. This guidance is contrary to the previous recommendation in Section 4 of page A-4 that states "While maximum allowable emissions would be used in the refined SIP modeling demonstration, initial information gathering could be focused on actual emissions for larger sources of 100 tpy or more as an initial screening of sources to possibly include in refined modeling<sup>16</sup>". The Division requests EPA to clarify which threshold should be used.

**EPA COMMENT:**

Page A-7, the guidance states:

*Sources found not to be represented by monitored background may also be examined through the use of screening models to see if they should or should not be included in the refined modeling. We recommend the use of EPA's new screening model AERSCREEN (U.S. EPA, 2011f, U. S. EPA, 2011g) and following recommendations based on pre-existing screening guidance (U.S. EPA, 1992). For small isolated sources, screening may be useful on a source by source basis. However, for a cluster of small sources, their cumulative impact should also be assessed. Individual sources may not be significant by themselves, but in clusters together they may potentially cause or contribute to a NAAQS violation. Although AERSCREEN does not output a design value concentration based on the 99th percentile form of the 1-hour SO<sub>2</sub> standard, it does output the overall maximum 1-hour concentration which could be used as a conservative estimate for comparison with the NAAQS and EPA's suggested interim significant impact level (SIL) for the 1-hour SO<sub>2</sub> NAAQS of 3 ppb<sup>19</sup>. If the maximum 1-hour concentration output from AERSCREEN violates the NAAQS, it does not mean that the source is in nonattainment, but that the source should be evaluated using refined dispersion modeling (See Step 3 below for more details).*



**Division's Response:**

The recommendation of using AERSCREEN for small isolated sources or cluster of small sources is unreasonable. AERSCREEN can only assess one unit at a time and the time that it takes to assess a cluster of sources would certainly increase the already unmanageable workload that states already have. The Division will already be analyzing those facilities that make up greater than 99% of the actual emissions of the state. EPA could develop tools to aid states in assessing clustered sources, by developing a sliding scale using stack heights, emission rates, and/or a *de minimis* level of emissions per square kilometers. EPA could justify the scale using a number of sensitivity runs using either AERSCREEN or AERMOD. The method of assessing of clusters and small isolated sources should ultimately be left up to the states.

**EPA COMMENT:**

Page A-12, the guidance states:

*...Appendix W also recommends modeling at 50% and 75% of capacity to determine the load that may cause the highest concentration because changes in stack parameters in loads less than 100% of capacity may cause higher ground level concentrations.*

**Division's Response:**

The Division agrees that the loads less than 100% capacity may cause higher ground level concentrations; however, load capacity does not usually result in a significant increase in concentration as compared with 100% load and the a majority of the time a facility's worst case scenario is at 100% load capacity. The time that it takes to collect this information for hundreds of emission units is beyond the scope of this demonstration. Plus, this information is not indicated in the permit and would be time consuming to obtain. It is unreasonable to assume that all facilities within a domain would be operating at its worst-case load simultaneously. Using the maximum allowable emission rate should be conservative considering the probabilistic form of the standard and the conservative nature of the model. This type of analysis should only be done if the cumulative concentration is slightly below an exceedance of the NAAQS.

**EPA COMMENT:**

Pages A-12 and A-13, the guidance states:

*Once sources have been identified within the nonattainment or unclassifiable area that may cause or contribute to NAAQS violations, the process of identifying and modeling the effect of control strategies begins. In some cases, control of one source may allow an area to be in attainment, while in other cases, controls could be implemented on several sources to share the control responsibility to demonstrate the area to be in attainment. As stated in Section B.1 of the SIP guidance document, states should develop an accurate attainment inventory to identify the level of emissions in the area sufficient to attain the 1-hour SO<sub>2</sub> NAAQS and be consistent with EPA's most recent guidance on emissions inventories.*

**Division's Response:**

States will have difficulties meeting the deadline individually and many states will be negotiating new federal limits that may change the modeling demonstrations prior to the 2013 deadline. Furthermore, the emissions limitations that result from modeling can only be implemented on Kentucky sources. Implementation of limitations on sources outside of Kentucky that may cause or contribute to violations in Kentucky will have to result from negotiations and agreements between state, local, and regional agencies. This process can be an extremely complex and time consuming. For this reason, EPA should reconsider the deadline of June 2013 for showing compliance for unclassified areas. In addition, EPA should give a reference to the guidance in which they are referring to for emissions inventories.

**EPA COMMENT:**

Page A-14, the guidance states:

*If stack heights exceed GEP, then GEP heights should be used with the individual stack's other parameters (temperature, diameter, exit velocity). For stacks modeled with actual heights below GEP, building downwash should be considered as this can impact concentrations near the source (Section 6.2.2b, Appendix W). If building downwash is being considered, the BPIP/PRIME program (U.S. EPA, 2004d) should be used to input building parameters for AERMOD. More information about buildings and stacks is in Section 6.5.*

**Division's Response:**

Although 40 CFR 50.118 prohibits dispersion techniques by modeling above GEP, it does not restrict the actual physical stack height of the source. Modeling on the actual stack height will determine the areas of actual concern, opposed to theoretical concern. It should be determined whether and where the source could potentially impact the NAAQS using actual stack height, then if it causes or contributes to a violation then use the GEP stack height, remodel and then impose the limits based on that value. An inventory of nearby structures is not a reality at this time and would take extensive time to obtain for a BPIP analysis.

**EPA COMMENT:**

Page A-23, the guidance states:

*In areas with SO<sub>2</sub> sources where the state has determined that there is no representative meteorological data, it may be difficult to perform accurate refined dispersion modeling for the implementation modeling.*

**Division's Response:**

A facility may wish to collect onsite meteorological data based on the concern that there is the potential for significant model performance degradation when using NWS data. EPA's past evaluations of AERMOD performance state that "the AERMOD dispersion model exhibits generally better performance using the full onsite meteorological data as compared to using a

single level (10-meter) of onsite meteorological data.” (See *Minimum Meteorological Data Requirements for AERMOD – Study and Recommendations*; December 14, 1998; AERMIC Committee) NWS data, in most cases, is collected using a 10-meter offsite tower. States will need to evaluate these situations on a case-by-case basis and may need an additional year to collect the representative onsite meteorological data.

**EPA COMMENT:**

Page A-23, the guidance states:

*As discussed in EPA’s March 1, 2011 memo “Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1- hour NO<sub>2</sub> Ambient Air Quality Standard” (U. S. EPA, 2011a), and the March 24, 2011 SO<sub>2</sub> designations guidance memo (U.S. EPA, 2011b) we recommend a less conservative “first tier” approach for a uniform monitored background concentration based on the monitored design values for the latest 3-year period, regardless of the years of meteorological data used in the modeling. Adjustments to this approach may be considered in consultation with the appropriate EPA Regional Modeling Contact with adequate justification and documentation of how the background concentration was calculated.*

**Division’s Response:**

In lieu of using monitoring values to derive a background values for areas in Kentucky, we propose to use regional background values that are derived using CMAQ modeling data as provided by SESARM (originally developed for VISTAS). The use of existing air quality monitoring to represent background concentrations can be overly conservative because most of these monitors have some impact from the facilities that are being explicitly modeled (100 tpy actual point source emissions threshold represents 99.5% or greater of the total SO<sub>2</sub> emissions inventory across the point source sector). EPA fails to address how to determine an appropriate background for areas with multiple monitors.

**EPA COMMENT:**

Page A-24, the guidance states:

*Section 8.2.2 of Appendix W gives guidance on background concentrations for isolated single sources and is also applicable for multi-source areas. One option is, as described in Section 8.2.2.b: “Use air quality data in the vicinity of the source to determine the background concentration for the averaging times of concern. Determine the mean background concentration at each monitor by excluding concentrations when the source in question is impacting the monitor... For shorter time periods, the meteorological conditions accompanying concentrations of concern should be identified. Concentrations for meteorological conditions of concern, at monitors, not impacted by the source in question, should be averaged for separate averaging time to determine the average background value. Monitoring sites inside a 90° degree sector downwind of the source may be used to determine the area of impact.”*

**Division's Response:**

Section 8.2.2 of Appendix W guidance on how to exclude concentrations of the monitor when the source of interest is impacting the monitor may be appropriate for short-term averaging periods for a single source, but does not seem feasible for a multi-source area where sources could be impacting the monitor at any given time, assuming that the sources are located around and not to just one quadrant of the monitor. Furthermore, determining the meteorological conditions for a probabilistic standard seems unreasonable and very resource intensive for a one hour standard. A regional background level derived from CMAQ modeling appears to be less resource intensive and a reasonable approach.

In reference to the Tables Page A-27, the coordinates of the violating receptor may be added to avoid confusion of whether this is the 4<sup>th</sup> highest 5 year average at a receptor or 4<sup>th</sup> highest 5 year average per facility regardless of location.

**EPA COMMENT:**

**Appendix B – Guidance on Section 110(a)(2) Infrastructure SIP Elements**

Page B-2, the guidance states:

*EPA's policy position is that a state's certification made in connection with the 2010 1-hour SO<sub>2</sub> NAAQS should be included in a SIP submittal only after the state has provided public notice and opportunity for public hearing on its certification.*

**Division's Response:**

Since all portions of the SIP have already been provided to the public for comment and hearing, this requirement is redundant and should be removed from the guidance. This redundant requirement would add at least an additional 60 days to processing time.

**EPA COMMENT:**

Page B-3, the guidance states:

*...the infrastructure SIP submission should include a list or table referencing all SO<sub>2</sub> emission reduction measures adopted and relied on by the state to meet other CAA requirements. Such SO<sub>2</sub> emission reduction measures may be a required part of a "maintenance track" attainment plan for the SIP submittal due in June 2013. The measures identified by the state should show, through dispersion modeling, that affected areas would be projected to be in compliance with the NAAQS as expeditiously as practicable, which we would expect to be no later than the year 2017.*

**Division's Response:**

This requirement appears to be modifying and expanding the boundary of infrastructure into the area of attainment demonstration. Dispersion modeling should not be submitted with a list of adopted SO<sub>2</sub> reduction measures for an infrastructure SIP.

**EPA COMMENT:**

Page B-3 and B-4, the guidance states:

*There are two issues that generally fall under this particular element of section 110(a)(2)(A) for which we are not prepared to issue guidance at this time. They are: (1) how states would need to address previously approved emissions limitations that may treat startup, shutdown and malfunction (SSM) events inconsistently with our longstanding guidance on excess emissions; and (2) how states would need to address previously approved variance provisions and "director's discretion" provisions that do not comport with EPA policy. We are currently discussing options for resolving these issues, taking into consideration several actions on state provisions relating to SSM and director's discretion in which EPA is currently engaged (e.g., infrastructure SIPs for Utah and North Dakota). Also, EPA has proposed to enter a settlement agreement that would obligate EPA to respond by August 31, 2012, to a petition for rulemaking filed by the Sierra Club that concerns SSM provisions in 39 states' SIPs. (See notice published in the Federal Register on September 1, 2011, at 76 FR 54465.) Under terms of this "Ozone Settlement Agreement," by August 31, 2012 EPA would either grant or deny the SSM petition with respect to states' individual provisions and further would take final action (such as an SSM SIP Call) with respect to those provisions on which we grant the petition.*

**Division's Response:**

The uncertainty of this issue causes concern for Kentucky and most likely the 39 states with approved SIPs that contain SSM provisions.

**EPA COMMENT:**

Page B-8, the guidance states:

*Section 110(a)(2)(D)(i) provides for SIPs to include provisions prohibiting any source or other type of emissions activity in one state from contributing significantly to nonattainment, or interfering with maintenance, of the NAAQS in another state.*

**Division's Response:**

Interstate transport provisions require a significant level of modeling, which may not be available by the time the infrastructure SIP is due.

**EPA COMMENT:**

**Appendix C – Guidance on Non-modeling Technical Demonstration of Attainment**

**Division's Response:**

The Division recommends that EPA establish a *de minimis* level regarding area evaluation and monitor location. If an entire county or region has actual emissions less than 100 tpy, then no modeling and no monitoring should be necessary to deem the area as "attainment."

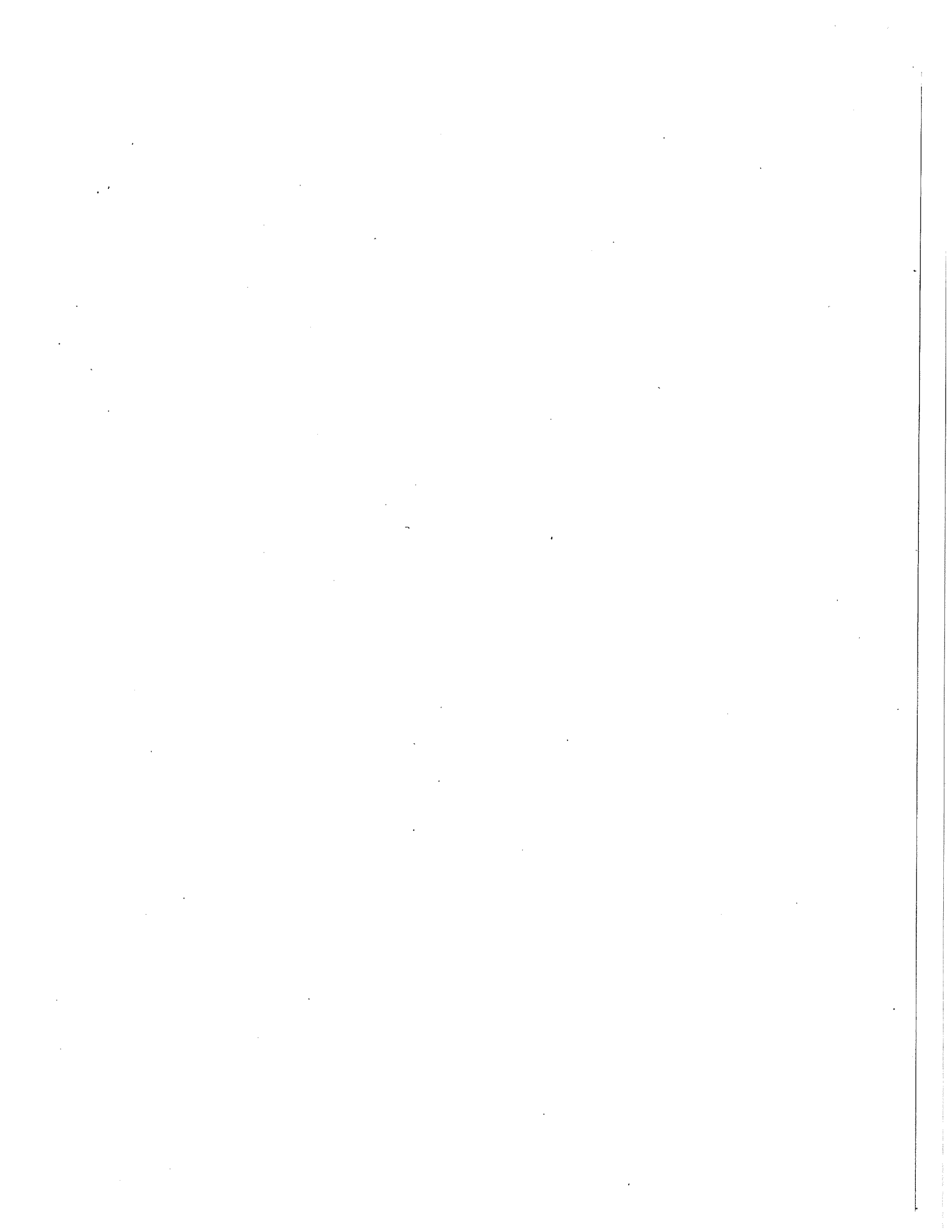
An emissions inventory of all SO<sub>2</sub> sources within the county or region showing historical emissions data (i.e. maximum actual emission totals per county from 2007-2010) should suffice. In addition, states should be allowed to use their best judgment to identify scenarios where a cluster of small sources may cause a problem. If a demonstration can be made of counties with significantly higher emission rates being below the standard, it stands to reason that lower emitting counties would also be below the standard and not require any analysis.

#### **General Comments from the Division regarding this draft non-binding guidance**

Guidance on modeling facilities across state lines should be addressed. States will have difficulties meeting the deadline individually and many states will be negotiating new federal limits that may change the modeling demonstrations prior to the 2013 deadline. Furthermore, the emissions limitations that result from modeling can only be implemented by the Division on Kentucky sources. Implementation of limitations on sources outside of Kentucky that may cause or contribute to violations in Kentucky will have to result from negotiations and agreements between state, local, and regional agencies. Kentucky has 7 bordering states, two local agencies, and 4 regions all of which have varying procedures on how to address modeling and setting limits. For this reason, it would be appropriate to include a timeline in the infrastructure that lays out the modeling plan that will demonstrate compliance before the 2017 date. This would extend the time that states have to make an initial modeling demonstration, negotiating any new limits with facilities (working with local, state, and regional agencies), and make a final modeling demonstration showing attainment. Furthermore, the guidance lacks scenarios when monitoring data is not available in the area of concern.

The guidance does not acknowledge the challenges in coordinating multiple sources and the individual control programs. For example, it is likely that there will be multiple facilities that will require the installation of control equipment to achieve modeled NAAQS compliance. However, the level of control necessary will be a function of the air quality impacts of surrounding sources. Therefore, the coordination of these facilities in determining the appropriate level of control for each plant is an immense challenge. It will require the Division to work collectively with these stakeholders to identify the appropriate solution. Multiple modeling runs for multiple control scenario options and source configurations will likely be necessary performed either by the State or a facility contractor. The Division does not have the available resources to provide this level of service while still meeting its remaining obligations under the CAA. The cost to facilities is likely to be very high and the availability of qualified contractors to perform the work in a timely manner is of great concern.

Finally, EPA's intended strategy is inconsistent with Congress' intent for implementation of the CAA; is 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 SO<sub>2</sub> emissions; provides inadequate consideration to the economic burden it would impose on state regulatory agencies; is not technically feasible within the limited time available for states with a significant number of existing SO<sub>2</sub> stationary sources; and provides no opportunity for due process until after EPA has formally disapproved a state implementation plan (SIP).



ATTACHMENT B

Docket ID No. EPA-HQ-OAR-2010-1059  
*Federal Register* Vol. 76, No. 61098, Guidance for 1-hour SO<sub>2</sub> NAAQS SIP Submissions  
November 21, 2011 letter and Discussion Paper from Ten Southern States



Alabama  
Florida  
Georgia  
Kentucky  
Mississippi

## Southeastern States

North Carolina  
South Carolina  
Tennessee  
Virginia  
West Virginia

November 21, 2011

The Honorable Lisa P. Jackson  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Dear Administrator Jackson:

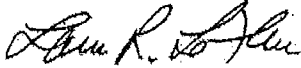
The purpose of this letter is to convey a series of concerns and recommendations from the environmental agencies of ten southeastern states. As chief administrators of these agencies, we are responsible for protecting human health and the environment and we have a solid record of doing so, as evidenced by consistently improving air quality in the Southeast and the significant resources that we dedicate to this effort. We present to you herein our thoughts regarding draft guidance the United States Environmental Protection Agency (EPA) released September 22, 2011. EPA has stated its intention to use this guidance in implementation of the 2010 sulfur dioxide (SO<sub>2</sub>) national ambient air quality standard (NAAQS). These concerns and recommendations include the following:

- EPA's proposed implementation approach is inconsistent with its long-term policies and is extremely resource-demanding. State implementation plan (SIP) submittal deadlines are not likely achievable. We believe that EPA should abandon its current implementation approach and instead develop a more reasonable approach that is adequately protective of air quality but does not place unnecessary and unrealistic administrative, technical, and cost burdens on our states.
- EPA should use only ambient air quality monitoring data to make initial designations of nonattainment areas for the revised SO<sub>2</sub> NAAQS.
- EPA's current plan Section 110(a)(1) of the Clean Air Act to require modeling for the state implementation plans that are due by June 2013 is a serious concern to our states, and we question EPA's significant departure from the way previous NAAQS have been implemented. We acknowledge that modeling may be necessary and appropriate in some cases to demonstrate compliance and impact to SO<sub>2</sub> ambient concentrations. However, historically the Section 110(a)(1) requirements have focused on the general information and authorities that constitute the "infrastructure" of the air quality management program. This is outlined in more detail in the enclosed discussion paper.

Numerous other concerns and recommendations are included in the discussion paper enclosed. We appreciate your consideration of these matters and look forward to EPA's favorable response. We stand ready to work with you and your staff in a cooperative and constructive manner to address these issues. Please contact any of the undersigned if you need additional information.

Lisa P. Jackson  
November 21, 2011  
Page 2 of 2

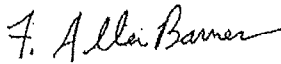
Best Regards,



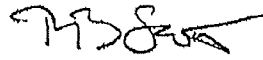
Lance R. LeFleur, Director  
Alabama Department of Environmental  
Management



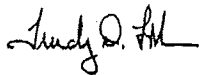
Jeffrey Littlejohn, PE, Deputy Secretary  
Florida Department of Environmental  
Protection



F. Allen Barnes, Director  
Georgia Environmental Protection  
Division



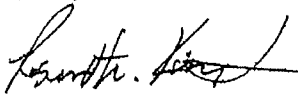
R. Bruce Scott, Commissioner  
Kentucky Department for Environmental  
Protection



Trudy Fisher, Executive Director  
Mississippi Department of Environmental  
Quality



Dee Freeman, Secretary  
North Carolina Department of  
Environment and Natural Resources



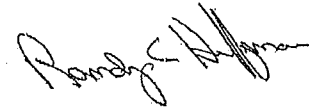
Robert W. King, Jr., PE, Deputy Commissioner  
South Carolina Department of Health  
and Environmental Control



Robert J. Martineau, Jr., Commissioner  
Tennessee Department of Environment  
and Conservation



David K. Paylor, Director  
Virginia Department for Environmental Quality



Randy C. Huffman, Cabinet Secretary  
West Virginia Department of  
Environmental Protection

cc: Senator Barbara Boxer  
Senator James M. Inhofe  
Congressman Ed Whitfield  
Congressman Bobby L. Rush  
Gina McCarthy, EPA OAR  
Gwen Keyes Fleming, EPA Region 4

**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 (SO<sub>2</sub>) 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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, SO<sub>2</sub> NAAQS<sup>1</sup> 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 SO<sub>2</sub> SIPs is June 2, 2013. CAA Section 110(a)(1) SIPs are called "maintenance" or "infrastructure" SIPs.<sup>2</sup>

Because the SO<sub>2</sub> NAAQS has existed for many years, states have a long history of effectively regulating SO<sub>2</sub> emissions and already have robust SO<sub>2</sub> regulatory provisions in their state rules and federally-approved SIPs. According to EPA, annual SO<sub>2</sub> emissions have declined 61% since 1990 and annual average SO<sub>2</sub> ambient concentrations have declined 65% from 1990 to 2009.<sup>3</sup>

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<sup>1</sup> 75 FR 35520

<sup>2</sup> 75 FR 35553

<sup>3</sup> <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 SO<sub>2</sub> emissions, as well as the clearly demonstrated success the nation has had with reducing SO<sub>2</sub> emissions, the Section 110(a)(1) SIP requirements should be easy to identify and straightforward for states to meet for the revised SO<sub>2</sub> 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"<sup>4</sup> 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 SO<sub>2</sub> 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.<sup>5</sup> 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 SO<sub>2</sub> 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).<sup>6</sup> 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 SO<sub>2</sub> monitored ambient concentrations, but such modeling should not be used to designate an area as a nonattainment area.

### **Concerns with EPA's Intended Strategy**

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<sup>4</sup> 75 FR 35553

<sup>5</sup> SO<sub>2</sub> Implementation Guidance, pages 17 and 21

<sup>6</sup> 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).<sup>7</sup>

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 SO<sub>2</sub> 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."<sup>8</sup> This is the correct interpretation of the CAA.

Under EPA's new approach, the requirements for areas designated attainment or unclassifiable under the SO<sub>2</sub> 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.<sup>9</sup> 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

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<sup>7</sup> "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."

<sup>8</sup> 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)

<sup>9</sup> 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.<sup>10</sup>

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.<sup>11</sup> 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 SO<sub>2</sub> NAAQS proposal and appears for the first time in the preamble to the final SO<sub>2</sub> NAAQS; thus, the southeastern states did not have an opportunity to provide input on approaches to implementing the new SO<sub>2</sub> standard. From June 2010 when the SO<sub>2</sub> 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 SO<sub>2</sub> emissions. EPA expects states to negotiate with sources federally-enforceable permit emission limits for all SO<sub>2</sub> 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

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<sup>10</sup> Clean Air Act Section 110(a)(1)

<sup>11</sup> Clean Air Act Section 192(a)

110(a)(1) SIPs are the same sources that are impacted by the Utility MACT<sup>12</sup> and the Industrial Boiler MACT<sup>13</sup>. 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 SO<sub>2</sub> 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 SO<sub>2</sub> emissions on a 1-hour basis prior to February 2013. Furthermore, without federally-enforceable emission limitations for SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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

<sup>12</sup> 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

<sup>13</sup> 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 SO<sub>2</sub> stationary sources in the limited time available.

#### Lack of Timely Due Process

Shortly after the SO<sub>2</sub> 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.<sup>14</sup> 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*).<sup>15</sup> EPA further took the position that states have no legal right to challenge EPA's SIP expectations until after EPA disapproves a SIP.<sup>16</sup>

#### 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 SO<sub>2</sub> 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 SO<sub>2</sub> reductions, avoid conflicts with other regulatory programs, and lessen the resource burdens on states and potentially affected sources.

EPA should follow the SO<sub>2</sub> 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.

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<sup>14</sup> 76 FR 4795

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

<sup>16</sup> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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

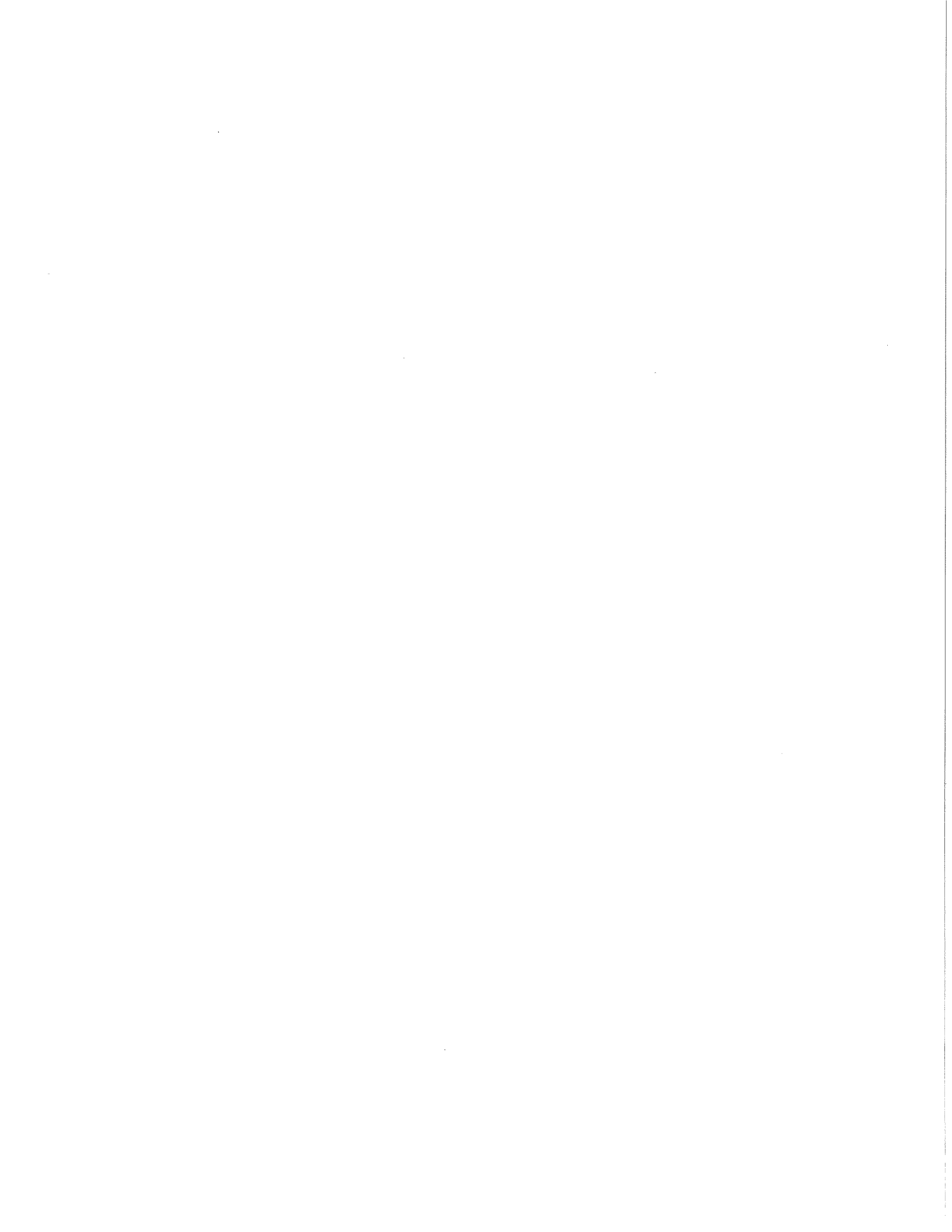
other methods may be approvable, and that EPA will base its approvability decision on the language in Section 110(a)(1) and (2) of the CAA.

### 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)*."<sup>17</sup> The inevitable litigation and regulatory uncertainty that this would produce would not be in the nation's best interests, either environmentally or economically.

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<sup>17</sup> 75 FR 35577



July 14, 2014

information to make a designation. No later than one (1) year after the promulgation of a new or revised NAAQS, the Governor of each state shall submit to the Administrator a list designating all areas as “nonattainment”, “attainment”, or “unclassifiable.” The Administrator signed the revision to the SO<sub>2</sub> NAAQS on June 2, 2010, and the Governor of the Commonwealth of Kentucky met its statutory obligation by a submittal letter dated June 2, 2011.

To promote the spirit of cooperative federalism, Section 107(d)(1)(B) establishes that the Administrator shall promulgate the designations provided by the Governor as expeditiously as practicable, but no later than 2 years of a new or revised NAAQS. The Administrator may extend the time period for a period of one year if the Administrator has insufficient information to promulgate the designations. “On July 27, 2012, the EPA announced that it had insufficient information to complete the designations for the 1-hour SO<sub>2</sub> standard within two years and extended the designations deadline to June 3, 2013.”

As proposed in this rulemaking, the intended date by which the EPA would issue final designations for the remainder of the country is December 2020 (79 FR 27457), or ten (10) years after the revised SO<sub>2</sub> NAAQS. This proposed schedule directly conflicts with Section 107(d)(1)(B)(i) of the Clean Air Act.

Regarding EPA’s response to the Governor’s list of designated areas, the Administrator is obligated to notify the State no later than 120 days before the date the Administrator promulgates the designation, if the Administrator **modifies** the Governor’s list of designated areas. Section 107 of the Clean Air Act does not allow the Administrator to ignore the list of areas submitted by the Governor. On February 6, 2013, EPA issued its “120 day letter” to Kentucky and the Commonwealth responded as allowed under the Act on March 6, 2013. In its response letter, Kentucky requested that EPA declare those areas with sufficient ambient air monitoring data as “attainment”; and for those areas where she determines she has insufficient information to make designations; the Administrator shall designate those areas as “unclassifiable.”

Instead of modifying Kentucky’s designations, the Administrator only designated areas not meeting the standard based upon quality-assured ambient air monitoring data as “nonattainment”. In doing so, the Administrator ignored all other areas, including areas with sufficient ambient air monitoring data meeting applicable regulatory requirements and the NAAQS, until EPA developed an iterative process as prescribed in the proposed DRR. The proposed iterative process establishes significant resource demands for air agencies and is unnecessary for EPA to meet its statutory obligations.

The Division appreciates the opportunity to comment on the proposed rule. If you have any questions regarding these comments, please contact Mr. John Gowins, of my staff, at (502) 564-3999.

Sincerely,



Sean O. Alteri  
Director

SOA:jeg