

December 5, 2013

Larry Wallace
U.S. Environmental Protection Agency
109 T.W. Alexander Drive
Mail Code: C539-01
Research Triangle Park, NC 27709

John Summerhays
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Mail Code: AR-18J
Chicago, IL 60604-3507

Re: Draft Guidance for 1-Hour SO₂ Nonattainment Area SIP Submissions

Dear Messrs. Wallace and Summerhays:

The Northeast States for Coordinated Air Use Management (NESCAUM) offers the following comments on the U.S. Environmental Protection Agency's (EPA's) draft guidance, entitled "Guidance for 1-Hour SO₂ Nonattainment Area SIP Submissions" and dated October 28, 2013. NESCAUM is the regional association of air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

In brief, the draft guidance needs more specificity in terms of what states must submit for approvable state implementation plans (SIPs) for the one-hour primary sulfur dioxide (SO₂) National Ambient Air Quality Standard (NAAQS). As proposed, the draft guidance is overly broad, and encourages many case-by-case assessments without clear and consistent criteria to adequately bound the EPA regional offices as they review and decide whether or not to approve SO₂ SIPs. Without more clearly defined planning criteria, areas with persistent SO₂ problems could potentially avoid taking necessary mitigation action. There is also the clear potential for unequal treatment as a result of regional inconsistency.

More refined guidance should include specifics with respect to SIP components, such as modeling demonstrations. Moreover, EPA should be clear in its guidance as to the interplay between Clean Air Act Title I, Section D, Subparts 1 and 5. There is confusion among some states as to whether Subpart 1 requirements would be in force; clarifying the interaction would help states understand which requirements, timeframes, and available flexibility tools apply. It is our

understanding that Subpart 1 (sections 171-179B) applies unless more specific requirements are articulated in Subpart 5 (sections 191 and 192).

We are also concerned with EPA's apparent decision, reflected in this draft guidance, to revise its prior policy concerning averaging times for emission limits. On pages 2-3 of the draft guidance, EPA states:

[It] now believes that emission limits based on averaging times longer than one hour, up to 30 days, may provide adequate assurance that the air quality standard will be attained, so long as the limit reflects comparable stringency as the one-hour average emission limit that modeling shows to provide for attainment.

Nowhere in the guidance has EPA demonstrated that a 30-day averaging time is sufficiently protective of a one-hour NAAQS. EPA should allow for no longer than a 24-hour averaging time, or demonstrate under what circumstances a longer averaging time would be protective of the one-hour standard.

The following are more detailed and additional comments on the draft guidance.

The proposed 30-day averaging time: Section D.2. (pp. 19-32) of the draft guidance describes setting emissions limits and averaging times. The NESCAUM states are concerned that EPA is proposing that SO₂ emissions limits be set using averaging times much longer than the averaging time of concern (one-hour). While we agree that some flexibility may be warranted to allow for short-term emission spikes, EPA's proposed use of a 30-day emission limit is not sufficiently justified or technically supported as protective of the one-hour SO₂ NAAQS. Specifically, we would like to know the basis of EPA's assumption that periods of high hourly emissions "would be likely to have relatively little impact on air quality, insofar as they would be very unlikely to occur repeatedly at the times when meteorology is conducive for high ambient concentrations of SO₂" (page 20). This statement appears to be a broad generalization, and does not reflect our understanding of the relationship between emissions, meteorology and ambient concentrations of SO₂. We recommend that EPA allow for emission limits no longer than 24-hour as a basis for complying with the one-hour NAAQS, or demonstrate under what circumstances a longer averaging time would be protective of the one-hour SO₂ NAAQS.

The draft guidance is vague and lacks specific criteria to determine when to allow control strategies that account for variability in one-hour emission rates through limits with longer averaging times. For example, the minimum amount of emissions data required to develop a representative emissions distribution needed to assess the relationship between the one-hour critical emissions values to a longer averaging time is not discussed. While the draft guidance provides one example to determine an adjusted 30-day average of an hourly mass emissions limit based on an hourly emission rate that demonstrates compliance with the NAAQS, it is insufficient. The draft guidance omits specific steps needed to calculate the downward adjustment of the critical value using emissions profiles. Page 28 reads: "[T]his analysis focuses

on the portion of the emissions distribution where compliance is most at issue, while using sufficient data to obtain an adequately robust result.” This provides insufficient guidance to states or to the EPA Regions as to the parameters of the data (e.g., amount, levels, acceptable data capture) that would be required in order to be considered an adequate justification for the proposed longer averaging time. Minimum data requirements should be set for calculating the emission profiles to be used in the adjustment from the one-hour critical values to a longer averaging time allowable emission rate. The draft guidance should also clarify steps for the downward adjustment of the critical value when using a post-control emissions profile that differs from the historical emissions distribution.

EPA has not provided any technical documentation to demonstrate that a 30-day emission limit could be sufficiently protective of the one-hour NAAQS. If emissions profiles constructed from historical emissions data are to be applied in some fashion to justify a longer than one-hour averaging time, caution is advised that past performance does not guarantee future compliance with the NAAQS. The effect of longer averaging times could result in masking periods of peak emissions. Although we recognize that, given the probabilistic nature of the one-hour SO₂ NAAQS, some flexibility may be warranted to accommodate variable emissions, additional information is needed to support a 30-day average SO₂ emissions limit. A 24-hour primary SO₂ NAAQS and a three-hour secondary SO₂ NAAQS have existed since 1971. It should not be overly burdensome to restrict the averaging time for SO₂ permit limits to a maximum of 24-hours.

Enforceable measures: Page 1 of the guidance indicates that state plans may take into consideration emissions reductions from enforceable national control programs, and cites the Clean Air Interstate Rule (CAIR) as an example. Citing CAIR is of concern, as it is a cap-and-trade program that sets annual SO₂ caps. It does not set source-specific SO₂ emission limits that are enforceable, nor can it ensure source-specific SO₂ reductions. CAIR would not likely result in the source-specific emissions reductions necessary to attain the one-hour SO₂ NAAQS. Moreover, CAIR’s longevity as a program is questionable, given the current court remand and EPA’s plans to issue a revised Cross State Air Pollution Rule. We recommend that EPA delete CAIR as an example of an enforceable measure.

Timing of reductions and SIP requirements: EPA should clarify the interplay between Clean Air Act Title I, Section D, Subparts 1 and 5 with respect to SIP requirements and deadlines. NESCAUM assumes that provisions of Subpart 1 also apply, except where Subpart 5 has specific provisions. For example, the one-year extension without penalty provision of Subpart 1 should be available to states if needed, and we request that EPA explicitly state whether this is the case. Notwithstanding EPA’s interpretation of the Clean Air Act, EPA should clearly explain its understanding of the relationship between the two subparts in the final guidance and provide its rationale.

Moreover, states have a very short window of time to put SO₂ controls in place and begin monitoring for the three years of clean data required for attaining the NAAQS. NESCAUM

urges EPA to clarify the process and timeline for the following: for states to have all the necessary controls in place for the three-year window; for EPA to issue a determination of whether the SIP is sufficient; for states to invoke a one-year extension without penalty, provided that attainment is not monitored and all controls are in place; and for implementing any required contingency measures.

Flexibility with inventories: On pages 7 and 58 of the draft guidance, EPA indicates that air agencies should submit full emissions inventories for the attainment year. The NESCAUM states recommend that, in cases where only one or a small group of sources are causing the SO₂ NAAQS nonattainment, states be allowed to submit an emissions inventory for a pre-attainment modeling year instead. This demonstration should show the reduced, permitted allowable emissions from the source(s) causing nonattainment.

There are three reasons for allowing this flexibility. First, it involves significant resources for a state to complete a projection year inventory, and the usefulness of this inventory is negligible when only one source or a few sources are known to be causing nonattainment in the area. The emission reductions from the identified source(s) are critical for attainment, and in most cases will be more significant than the SO₂ emissions from all other inventory sources combined. The modeling inventory used to demonstrate attainment can show these critical reductions. Second, given sulfur reductions in fuel resulting from federal and some state regulations (e.g., low- and ultra-low sulfur distillate and residual fuels), EPA should have confidence that a pre-attainment year SO₂ inventory will show lower emissions for the area and point source sectors (i.e., it will be more conservative). Third, the year of the projection year inventory will likely differ from other projection year inventories required for other required SIP planning purposes. The year of the projection inventory required for the SO₂ SIP will depend on the year that the affected sources will be required to make reductions in their permitted SO₂ levels. States may therefore be required to prepare multiple projection inventories for consecutive future years.

Planning requirements for multi-states non-attainment areas: EPA should allow fewer planning requirements for states in a multi-state nonattainment area that are in nonattainment solely due to a source or a small group of sources located in another state. Otherwise, states without contributing sources would undertake significant planning efforts that would likely yield little to no environmental benefit. In these cases, states in which the sources are located must ensure that their SIPs adequately control the sources causing the NAAQS violation for the entire nonattainment area. Aside from petitions to EPA under Clean Air Act section 126, downwind states have no control over the out-of-state sources' permits or operations. EPA's guidance should address these situations, delineating states' and EPA's roles and responsibilities for specific tasks. This should include explaining how sharing of information between states during the planning process would occur, and describing how monitoring of maximum impact areas would occur when such areas are located in another state.

In the final guidance, EPA needs to clarify other responsibilities of the states in multi-state nonattainment areas where nonattainment of the SO₂ NAAQS is caused by one source or a small

group of sources located in another state. On page 59 of the draft guidance, the sections entitled “Verification of continued attainment” and “Contingency Plans” are difficult if not impossible to comply with if sources causing nonattainment are not under the state’s jurisdiction. EPA should provide more comprehensive guidance for these cases.

Moreover, the section entitled “Section 110 and Part D” on page 56 of the draft guidance should be expanded to specifically address interstate transport of SO₂ emissions and potential downwind impacts. This section currently focuses solely on redesignation, and fails to discuss possible obligations with respect to downwind impacts. States would benefit from discussion of and guidance on this issue.

Follow up for areas modeled as attainment: EPA’s guidance should specify the requirements for the periodic follow-up modeling that tracks changes in SO₂ concentrations and assures that the NAAQS continues to be met. EPA should identify the extent and frequency of the effort needed to assure attainment. Clear criteria and requirements would not only be extremely helpful to the states for SIP planning and evaluation purposes, but would ensure consistency across the country in the manner in which these analyses are conducted by states and reviewed by EPA.

Areas determined to have violated the NAAQS: The final guidance should establish clear deadlines by when states must address applicable SIP requirements pursuant to Clean Air Act section 179. This should include the procedures, timelines, and SIP submittal dates for areas that fail to attain.

Monitoring requirements: On page 59 (sub-bullet 3) of the draft guidance, EPA states:

Once an area has been redesignated to attainment, where air quality monitors exist in an area, the air agency should continue to operate an appropriate air quality monitoring network as provided under 40 CFR part 58 to verify the attainment status of the affected area.

The NESCAUM states recommend that EPA set guidelines and provisions for monitor shutdown under specific conditions to avoid a *de facto* requirement that all deployed SO₂ monitors become part of states’ monitoring networks in perpetuity. While we understand the need for monitoring for maintenance, there are also cases where a source or a process is shut down and the resultant emissions reductions are permanent and enforceable. Monitors added to determine SO₂ attainment near a discrete point source should be allowed to be shut down after an appropriate period of time if that point source ceases to operate or is removed and the monitor records consistently low levels of SO₂. In these cases, the need for those monitors no longer exists. EPA should allow for shutdown in these monitors and develop procedures in the guidance that delineate the appropriate conditions under which states may shut down such sites.

We are also concerned that EPA may require a monitor to be moved if SO₂ controls result in changes to the stack configuration. Such changes to the network disrupt the three-year cycle of data collection. EPA should address in the guidance how such changes, if needed, may be made without significant disruption.

Allowables versus actuals in the attainment demonstration: EPA must correct current inconsistencies in the draft guidance on pages 54-55 regarding whether actual or allowable rates are required for the modeled attainment demonstration. EPA should require allowable hourly (not 30-day) emission rates rather than actual emission rates to demonstrate attainment. EPA should clarify when modeling with actual emissions is helpful, but should separate it from the attainment demonstration. Requirements listed on pages 57-58, which indicate that maximum allowable emissions would be required for the modeling, are inconsistent with the previous discussion on pages 54-55. This should be changed to allowable emissions rates.

Flexibility in redesignating before the attainment date: The draft guidance does not address the case where a state controls its SO₂ source(s), monitors attainment of the SO₂ NAAQS, and wishes to designate to attainment prior to its attainment date. Given the source-specific focus of the SO₂ NAAQS, the resource burden for developing SO₂ SIPs, and the specific situations where regulatory programs are in place and clean data determinations can be made prior to attainment dates, EPA should allow states to redesignate to attainment without developing full nonattainment plans. More specifically, EPA should consider allowing states to submit redesignation requests that incorporate an abbreviated attainment demonstration. This would streamline the process by allowing for one submission rather than two (i.e., an attainment plan followed by a redesignation request).

Modeled versus monitored nonattainment areas: It is our understanding that this guidance is intended for use not only by areas that have been designated nonattainment based on monitored data, but also by areas that will be designated nonattainment based on modeling results. We urge EPA to review the guidance with both uses in mind, and identify sections that may need to be modified to address modeled nonattainment issues.

Characterization of the Technical Assistance Document as guidance: In Appendix A of the draft guidance, EPA lists the SO₂ NAAQS Modeling Technical Assistance Document (TAD) under recently issued guidance. This is at odds with how EPA has previously characterized the TAD (i.e., that it was not guidance). If EPA is revising its characterization of the TAD as guidance so that it becomes more important that states adhere to it during implementation, then these documents should receive more rigorous scrutiny. If this is not the case, then EPA should not list the Modeling Technical Assistance Document as guidance.

Need for federal measures: As states work to meet their obligations to attain and maintain the SO₂ NAAQS, we urge EPA to do its part in ensuring that appropriate SO₂ measures and obligations are in place and up to date. This pertains to EPA's requirement to update New Source Performance Standards, as well as Control Technology Guidance documents and

Reasonably Available Control Technologies. Because federal measures are often the foundation of SIPs, having updated federal measures on which to rely is paramount.

Thank you for the opportunity to comment. If you or your staff has any questions regarding the issues raised in this letter, please contact Leah Weiss at NESCAUM at 617-259-2094.

Sincerely,

A handwritten signature in cursive script, appearing to read "Arthur N. Marin".

Arthur N. Marin
Executive Director

Cc: NESCAUM Directors
Anna Wood, EPA/ OAQPS
Scott Mathias, EPA/OAQPS