

July 11, 2014

Gina McCarthy, Administrator  
U.S. Environmental Protection Agency  
Mail Code: 2822T  
1301 Constitution Avenue, N.W.  
Washington, DC 20460  
Attention: Docket ID No. EPA-HQ-OAR-2013-0711

*Re: Proposed Rule on Sulfur Dioxide Data Requirements*

Dear Administrator McCarthy:

The Northeast States for Coordinated Air Use Management (NESCAUM) offers the following comments on the U.S. Environmental Protection Agency's (EPA's) Proposed Rule, published in the Federal Register May 13, 2014 and entitled "Data Requirements Rule for the 1-Hour Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard (NAAQS)" (79 FR 27446-27472). As per EPA's request, we are also providing some comments on the Technical Assistance Documents (TADs). NESCAUM is the regional association of air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

## Applicability

### *Emissions- or Population-based Approach*

EPA requests comment on employing either (1) an emissions- and population-based threshold approach with an annual emissions metric, or (2) an emissions-based threshold approach to identify SO<sub>2</sub> sources for further ambient air quality characterization (79 FR 27454). EPA also proposes to set different source emissions applicability thresholds for areas with populations below and above 1 million (79 FR 27455).

There should be no difference in applicability between urban and rural sources. The Clean Air Act requires that NAAQS apply equally to all populations, regardless of population density. As such, EPA should rely only on an emissions threshold rather than a paired emissions and population threshold to determine applicability.

EPA's Population-Weighted Emissions Index (PWEI) concept for siting monitors may make some sense for certain pollutants such as nitrogen dioxide, where there are correlations between sources of concern and populations, but with SO<sub>2</sub> there is no such correlation. NESCAUM urges EPA to adopt the proposed Option 1 level of 1,000 tons per year, but apply it uniformly, regardless of population.

### *Adding a One-Hour Emissions Threshold to Rule Applicability*

In addition to an annual emissions applicability threshold, NESCAUM recommends that EPA adopt an hourly emission trigger for rule applicability to address those large emitters of SO<sub>2</sub> that operate relatively infrequently. The hourly threshold would be applied to sources not meeting the tons per year threshold. The test should also include a minimum hours of operation per year. A suggested hourly applicability threshold could be for sources that operated more than 500 hours per year and for which the 99th percentile of their one-hour emissions values is above 500 pounds per hour.

All sources that have operated less than 500 hours a year or have an hourly SO<sub>2</sub> allowable emission rate below 500 pounds per hour could be initially eliminated from consideration. Hourly data from sources with continuous emissions monitors (CEMs) could be used to quantify the hours of operation and the 99<sup>th</sup> percentile value. For sources without CEMs or other means of calculating hourly emissions, either 24-hour or 30-day average SO<sub>2</sub> emissions could be used; these rates could be converted to hourly SO<sub>2</sub> emission rates using Tables 1 and 2 in Appendix D of the EPA document entitled *Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions* (April 2014). The NESCAUM states further recommend that EPA revisit 500 hours per year as an applicability criterion at some later point in time, once SO<sub>2</sub> implementation is underway, to reassess its appropriateness as a threshold.

### *Emissions Timeframe for the Rule Applicability Test*

EPA proposes that source applicability be based on the most recent year of emissions data (i.e., calendar year 2014 for electric generating units (EGUs) and 2013 for non-EGUs) so that “the air agency and the EPA will be able to take into account any recent emissions increases or decreases that would cause a source to be subject to the requirements in this proposed rule or not.” (79 FR 27457) The NESCAUM states recommend that applicability be based on a source’s emissions over a three-year period.

Specifically, we recommend that EGU annual emissions over the 2012 to 2014 timeframe should be examined, and any source whose emissions exceeded the threshold must comply with the SO<sub>2</sub> implementation rule. If a particular year’s emissions were considered unrepresentative for a source, then that source could request that the year not be used for the applicability test. States should also be able to consider whether there are legal agreements in place that would affect the source’s operation, including enforceable shutdowns or permitted controls. Sources that added enforceable permit conditions to lower emissions below the applicability threshold in recent years would not need to be considered. The attainment designation would be based on modeling with the three most recent years of actual emissions data (i.e., 2012 through 2014 for EGUs and 2011 through 2013 for non-EGUs).

This approach would allow states and EPA to subject sources with the potential for large emission increases to an ongoing attainment verification process in the future. For example, if SO<sub>2</sub> emissions were to rise dramatically due to a change in the relative cost of coal versus natural gas, the impact of the increased emissions from this source could be evaluated for potential NAAQS violations. If applicability were to be additionally based on maximum actual hourly emissions, then the length of time to apply to the initial annual applicability trigger would be less important.

### **Multi-source Analyses**

EPA should develop an appropriate multi-source gridded approach and establish an emissions density metric as part of its applicability test. This would ensure that an appropriate number of sources are subject to the rule. The metric should ensure that, if two or more major sources are located in an area and their combined actual emissions are greater than a specified threshold, then an analysis should be conducted on these sources. This applicability metric should be in addition to those individual sources having a 1,000 ton per year actual emission rate in the last three years, unless such sources have recently changed operations or fuels so that SO<sub>2</sub> emissions will remain below the threshold.

We request that EPA provide more specific guidance on conducting multi-source modeling analyses. We appreciate the flexibility that EPA is trying to provide to states, but EPA must also ensure that the SO<sub>2</sub> implementation program is designed to identify areas where several sources contribute to an SO<sub>2</sub> problem and to require those sources to be analyzed for their combined impacts. We request that EPA set specific criteria, such as proximity and total emissions per year, to establish a threshold for analyzing combined area emissions. We would like guidance on when a source should be modeled by itself and when a source should be modeled with other sources in the surrounding area, more detail on the size and location of sources that should be included in a multi-source analysis, and who would be responsible for conducting this analysis when sources are located in a multi-state area.

### **Multi-state Planning**

EPA does not explicitly describe how states should address violations that span multiple states in either the proposed rule or the TADs. In the proposed rule, EPA recommends that “the relevant air agencies work together to determine a common analytical approach for assessing air quality in that area.” (79 FR 27460) We urge EPA to be more specific as to which state and EPA region would lead a multi-state planning process (e.g., confer responsibility to the state in which the source resides).

### **Monitoring Plan Verification Report**

The NESCAUM states are concerned about EPA’s proposed monitoring plan verification report requirements (79 FR 27463). As written, they add an unusual amount of complexity to the

monitoring plan. For example, EPA's proposed schedule is unrealistic. EPA expects the plans to be submitted annually by July 1, but states will not have the required quality-assured emissions monitoring data processed by July 1. After receiving those data, states must process them for modeling, run the model, and assess results. We recommend that the monitoring plan be limited in scope to solely address issues related to the siting and the running of monitors, and that the verification plan be considered a separate element that is due later in the fall (e.g., November).

## **Monitoring**

### *Criterion for Shutting Down Monitors*

The NESCAUM states are concerned with EPA's proposed metric—a design value of 50 to 80 percent of the SO<sub>2</sub> NAAQS—as an eligibility criterion for monitors to be shut down (79 FR 27463). This metric is very sensitive to the high end of one-hour data distributions, in part because the form of the one-hour SO<sub>2</sub> NAAQS is the 99<sup>th</sup> percentile (unlike the 98<sup>th</sup> percentiles for other daily NAAQS forms). After analyzing distributions of source-oriented monitoring data (i.e., daily one-hour maximum SO<sub>2</sub> concentrations from a facility-oriented monitor with data above the SO<sub>2</sub> NAAQS), the NESCAUM states recommend that a design value no higher than 50 percent of the SO<sub>2</sub> NAAQS be used as the shutdown criterion.

### *Characterizing the Existing Monitoring Sites*

In the proposal, EPA indicates that one-third of the existing SO<sub>2</sub> monitoring network is suitably sited for near-source monitoring, and that many of the remaining monitors could be shut down or moved, allowing resources to be freed up for the near-source network. We remind EPA that some NESCAUM states run rural SO<sub>2</sub> monitors to support tracking trends in acid deposition and to measure background concentrations for use in permit-related dispersion modeling. Many of these monitors cannot easily be shut down and redeployed, and EPA should recognize this in the guidance.

### *Facility-supplied Monitoring*

EPA proposes an option for facilities to perform required or supplemental monitoring (79 FR 27462). NESCAUM supports this option but recommends that EPA allow states the option to require facilities to fund either the costs of the monitoring (and modeling) or the cost to states for overseeing the facility-conducted monitoring. EPA should recognize that it will require significant state resources to implement a facility-supplied monitoring program. For example, the monitoring sites must somehow be integrated into state agency network structures; the data must undergo quality assurance and quality control by the state, and be formatted and processed for input into various state and federal reporting systems such as EPA's Air Quality System. States must have the ability to charge fees to fully fund its oversight of the facility-supplied monitoring, or EPA should conduct the oversight itself.

### *Number of Monitors*

In the Monitoring TAD, EPA does not provide clear guidance on the number of monitors required for a facility, and leaves such discretion to the EPA Regional Administrator (page 11). It is difficult for states to design or budget for a network with open-ended siting requirements. When monitoring is used for determining compliance with the NAAQS, EPA should provide more guidance on the number of monitoring locations it considers reasonable under various terrain scenarios, and should allow states to make such determinations on a case-by-case basis.

### *Supplemental Monitors*

We urge EPA to continue evaluating emerging, cost-effective monitoring technologies that are easier to deploy and can supplement regulatory SO<sub>2</sub> monitoring. When such technologies become available, we urge EPA to work with states to develop guidance that clearly explains the role of supplemental monitors.

### **Modeling**

NESCAUM has concerns about the proposed requirements for ongoing assessment of attainment for areas that have chosen the modeling option. EPA proposes three options for ongoing assessment, all of which could require states to perform an indeterminate number of future modeling analyses, perhaps on a three-year cycle. Such open-ended requirements have cost implications that could strain states' already-limited resources. EPA should clarify and appropriately bound these requirements. Specifically, EPA should clearly spell out the verification options available to states, i.e., (1) states may model once using allowable emissions; (2) states may require that an applicable facility accept an emission limit that is closer to its actual emissions, and thus not be required to conduct additional modeling; or (3) if states want the flexibility of using actual emissions for modeling, then they would be required to conduct modeling every three years.

### **Conclusion**

The SO<sub>2</sub> implementation program must be designed to ensure protection of public health where sources may violate the SO<sub>2</sub> NAAQS. To this end, we urge EPA to abandon a population-based approach for determining applicability, set reasonable requirements for verification plans, address multiple major sources located in close proximity regardless of political boundaries, and establish clearer monitoring criteria. If you have any questions about these comments, please contact Leah Weiss of my staff at 617-259-2094.

Sincerely,



Arthur N. Marin  
Executive Director

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