

March 12, 1997

Air Docket Section (LE-131)  
U.S. Environmental Protection Agency  
ATTN: Docket No. A-96-51  
Room M1500  
401 M Street, SW  
Washington, DC 20460

Dear Sir/Madam:

Thank you for the opportunity to provide comments on behalf of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) on the U.S. Environmental Protection Agency's (EPA's) proposals to revise (1) 40 Code of Federal Regulations (CFR) Part 58, to establish ambient air quality monitoring requirements for PM<sub>2.5</sub> (particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers) as measured by a new reference method being proposed to Appendix L to 40 CFR Part 50, or by equivalent methods designated in accordance with requirements being proposed in 40 CFR Part 53, and (2) existing ambient air quality monitoring requirements for PM<sub>10</sub> (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers). The proposed revisions were published in the Federal Register on December 13, 1996 (61 FR 65780).

As the state and local regulators who will hold primary responsibility for achieving new and revised National Ambient Air Quality Standards (NAAQS) for particulate matter (PM), the members of STAPPA and ALAPCO are interested in the development of the monitoring requirements that will be essential to the successful transition to, and full implementation of, the attainment strategies for the new and revised PM standards. Therefore, after careful consideration of EPA's proposed revisions to the PM monitoring requirements, we offer the following general comments.

### **General Comments**

The monitoring network for implementing EPA's newly proposed PM<sub>2.5</sub> NAAQS is one of the most critical components of the overall regulatory program. This network needs to be robust, deployed expeditiously, and capable of producing reliable data that can be used not only to identify areas violating the standards, but also to help develop attainment plans adequate to attain and maintain public health. Simply put, successful identification of PM<sub>2.5</sub> nonattainment areas and implementation of control programs that will protect public health are dependent upon the adequacy and timeliness of the monitoring network we deploy.

Unfortunately, EPA's PM Monitoring proposal falls far short of providing for the expeditious deployment of the necessary monitoring infrastructure that state and local agencies will need to produce reliable air quality data and effectively implement the new PM NAAQS. Moreover, EPA has indicated that delaying deployment of monitors will allow for more precise placement of sites, thus ensuring that financial resources are optimized. While fiscal prudence is laudable, in this instance STAPPA and ALAPCO believe that it is "penny wise and pound foolish." The cost of potentially resiting some misplaced monitors pales in comparison to the cost of the human lives compromised and lost, according to EPA's estimates, as a result of delaying controls for a year or more.

STAPPA and ALAPCO strongly recommend that EPA accelerate the phase in and significantly expand the requirements of the PM monitoring program. The associations caution, however, that accelerating and expanding the monitoring program will be impossible without EPA's equal commitment to providing substantially increased resources early in the program to help state and local agencies develop and implement effective monitoring networks. Moreover, STAPPA and ALAPCO strongly reject the notion that resources for a new PM<sub>2.5</sub> monitoring network can be generated by reengineering the existing PAMS and PM<sub>10</sub> networks and applying the savings toward the new PM<sub>2.5</sub> network, nor can sufficient resources be generated by disinvesting in other air program activities. If we are to deploy and operate the necessary monitoring network as quickly as it is needed, it is absolutely imperative that EPA come forward with the full level of additional, not reprogrammed, resources during the first years of the program.

### **1. EPA's Proposal Delays Expeditious Deployment of the Necessary Monitoring Network**

Ambient air quality monitoring that is both timely and adequate is critical because it provides the data needed by state and local agencies to designate areas that are in violation of the NAAQS standards. Section 107(d)(1) of the Clean Air Act requires states to submit designations (nonattainment, attainment, unclassified) to EPA within one year of the date EPA first promulgates or revises a NAAQS. Thereafter, EPA has two years from the promulgation or revision date of a NAAQS to promulgate the final designations, unless the information available is insufficient, in which case EPA may take an additional year.

EPA is under court order to promulgate the new PM<sub>2.5</sub> NAAQS by July 19, 1997. Thus, under the designation deadlines established in Section 107(d)(1), states will be required to propose area designations by July 1998 and EPA will be required to promulgate designations by July 1999, unless insufficient information is available, in which case EPA can delay finalizing designations until July 2000.

STAPPA and ALAPCO believe that EPA's proposed PM monitoring rule unnecessarily delays the timely collection of air quality data needed to make informed regulatory decisions and meet the statutory PM<sub>2.5</sub> designation deadlines. While the agency's proposal ultimately would provide for a total of 1,200 PM<sub>2.5</sub> monitoring sites,

these sites are phased in over three years, with over 40 percent delayed until the year 2000. Moreover, of the total 630 required PM<sub>2.5</sub> monitoring sites that are planned, over half are delayed until 2000. Thus, EPA's proposal will compel states to base their PM<sub>2.5</sub> designations (due in July 1998) on just 20 percent of the complete monitoring network. Given the critical importance of expeditiously identifying areas where PM<sub>2.5</sub> poses a threat to public health based on sufficiently complete and accurate data, EPA's protracted deployment schedule is unacceptable.

In many instances, insufficient data will force EPA to use the extension provided for in Section 107(d)(1)(B), which will delay by an additional year (or more) final designations and, more importantly, the development and implementation of attainment plans to protect public health. This delay will create at least two important consequences. First, delays in designating PM<sub>2.5</sub> areas will delay attainment deadlines and the implementation of control strategies. Until measures to control PM<sub>2.5</sub> are in place, we continue to expose the public to levels of pollution, which, according to EPA's own estimates, result in thousands of premature deaths each year. Second, delays will inevitably produce both inter- and intrastate inequities in the timing of areas' applicable designation and attainment deadlines, because monitoring to measure the new standard will vary in time (when monitoring began) and location (which areas monitor first). Therefore, as stated above, EPA must accelerate the phase-in of the PM<sub>2.5</sub> monitoring network.

## **2. EPA's Proposal Provides Insufficient Monitoring In Major Metropolitan Areas**

STAPPA and ALAPCO believe the success of the entire PM<sub>2.5</sub> control program will depend largely on the extent to which areas across the country have adequate monitoring networks within their jurisdictions. These networks will be critical, not only for developing cost-effective control strategies to protect public health, but also for notifying the public regarding the status of their particulate air pollution problem.

As we stated in the previous section of these comments, EPA's proposal unnecessarily delays full deployment of the monitoring network. This problem is further compounded by the fact that even in those areas where EPA proposes to require monitors in the first year of deployment, the commitment is minimal. In fact, under the agency's program, many of the largest metropolitan areas will have little, or no, monitoring sites for several years. For example, EPA's proposal would require states to develop "core" population-oriented monitoring sites to measure PM<sub>2.5</sub> exposure concentrations in areas with populations greater than 500,000, where 60 percent of the U.S. population resides. However, in the first year of the program -- 1998 -- EPA is proposing to require just two core sites per state, irrespective of the number of areas within the state with a population over 500,000, with one additional monitoring site to be collocated in the two dozen PAMS areas across the country. This totals just 130 required sites nationally; quite simply, this is inadequate.

STAPPA and ALAPCO are extremely troubled by the fact that in the first year of this important program some large metropolitan areas will have no PM<sub>2.5</sub> monitors at all,

while others will have only a skeletal network. This approach will delay the collection of critical data for most major metropolitan areas and compromise the ability of state and local agencies to make good, scientifically defensible regulatory decisions, including those related to the timely designation of areas and the selection of appropriate attainment strategies. Accordingly, EPA must accelerate and expand the number of PM<sub>2.5</sub> monitoring sites in large metropolitan areas.

### **3. EPA's Proposal Provides Insufficient Monitoring In Other Metropolitan and Rural Areas**

STAPPA and ALAPCO are also very concerned that EPA's proposal contains no requirements for monitoring in areas with populations of less than 500,000. While the proposal envisions additional monitors that could be located in these areas, there is no requirement, or assurance, that these additional monitors will in fact be placed in these areas.

Monitoring sites in areas smaller than 500,000 in population are critical for several reasons. First, as noted above, these areas represent a large portion of the population. In fact, 40 percent of the population resides in areas with fewer than 500,000 people. Second, although it has been conjectured that concentrations of PM<sub>2.5</sub> are likely to be more uniform across large portions of the country than concentrations of PM<sub>10</sub>, thereby necessitating fewer PM<sub>2.5</sub> monitors in areas with populations under 500,000, STAPPA and ALAPCO find this argument faulty. Local sources of PM<sub>2.5</sub> in moderately populated and rural areas can pose problems both locally and downwind, thus warranting PM<sub>2.5</sub> monitoring in these areas. Of equal importance is the need for monitoring in rural areas to accurately distinguish between concentrations of fine and coarse mode particles to ensure that coarse mode particle concentrations do not cause inappropriate PM<sub>2.5</sub> nonattainment designations, particularly since the proposed PM<sub>2.5</sub> standard is designed to address fine mode particle pollution.

Moreover, in many areas there is a strong local commitment to controlling air pollution, as is evidenced by the existence of over 200 local air pollution control agencies across the country, many of which are located in metropolitan areas with populations less than 500,000. The citizens within these areas will depend upon their local air agencies to provide timely information regarding exposure to PM<sub>2.5</sub>. Therefore, STAPPA and ALAPCO firmly believe that the new PM monitoring program should provide for PM<sub>2.5</sub> monitoring in each area where there is a local air pollution control program so that air quality data of concern to citizens can be generated and, further, where problems are found to exist, appropriate control strategies can be developed and implemented.

### **4. EPA Has Underestimated the Need for Speciation and Special Purpose Monitoring**

Chemical analysis of monitoring samples, often referred to as "speciation," provides the most accurate information related to the sources of PM<sub>2.5</sub> (more so than mass measurements or other means of measurement) and is critical to obtain a full

understanding of the sources of constituent material that comprise a given area's PM<sub>2.5</sub> samples. Such information will be imperative to the development of appropriate attainment strategies and should be generated as soon as possible.

STAPPA and ALAPCO believe that the level of speciated monitoring provided for in EPA's proposal is insufficient both in scope and timing. Significant speciated monitoring is needed both in situations where adequate monitors are available and are producing large quantities of data, and in situations where limited monitors are available and are producing limited monitoring data. In both situations, speciation is critical for identifying the sources of the PM<sub>2.5</sub> and defining effective attainment strategies. Significant speciation becomes more imperative, however, in situations where limited monitoring sites are available to produce monitoring data. In addition, conducting speciation sooner, rather than later, is equally important for making designations and developing attainment plans. To avoid situations where state and local agencies are forced to choose to conduct either more monitoring or more speciation (but not both), the associations urge that EPA provide for both sufficient monitoring and speciation early in its new PM monitoring program.

Due to the importance of speciation, STAPPA and ALAPCO further recommend that EPA include minimum criteria in its regulations that provide guidance on when speciation is most appropriate. For example, speciation would appear inappropriate in situations where monitoring reveals no PM<sub>2.5</sub> attainment problems, but very appropriate in areas with strong indications of PM<sub>2.5</sub> pollution that have limited monitors generating limited data.

In addition, EPA's PM monitoring proposal would require by 2000 at least one regional background and one transport core PM<sub>2.5</sub> SLAMS monitor in each state, plus at least one additional PM<sub>2.5</sub> SLAMS monitor for each 250,000 people in each state. As previously stated, although state and local air agencies desire flexibility in implementing the new PM monitoring program, agencies recognize the need for background and transport monitoring data early in the program to effectively make attainment determinations and to identify PM problems and the sources of the applicable PM<sub>2.5</sub>. Background monitoring is critical to ensure that attainment plans are realistic and require the most appropriate control measures. Similarly, transport monitoring is important to understanding the interstate nature of regional and national PM pollution problems.

STAPPA and ALAPCO recommend that the new PM monitoring program provide for sufficient early background and transport monitoring infrastructure and resources to enable state and local agencies to adequately monitor these important factors.

##### **5. EPA Must Work With State and Local Air Agencies to Address Technical and Network Design Issues**

As EPA works to further develop and refine requirements for the PM<sub>2.5</sub> monitoring network, including the federal reference method -- both to promulgate and

implement a final program -- STAPPA and ALAPCO stress the critical need for EPA to work in close partnership with state and local air agencies to address technical and network design issues to ensure that the practical, "real world" perspective and experience of state and local agencies are considered.

## **Conclusion**

As previously stated, EPA plans to promulgate the new PM<sub>2.5</sub> NAAQS in July 1997. As such, the Clean Air Act will require state governors to propose area designations for the new PM<sub>2.5</sub> NAAQS by July 1998 and EPA to formally designate areas by July 1999, unless insufficient data is available, in which case EPA can delay designations until July 2000.

STAPPA and ALAPCO cannot overstate the importance of adequate, scientifically-defensible monitoring data early in the program to provide the critical information necessary to support accurate designation determinations, and effective attainment strategies to remedy identified problems. STAPPA and ALAPCO believe that EPA's failure to provide for adequate monitoring and resources in its proposed PM monitoring program jeopardizes the program's success and, almost certainly, will force regulators to make critical regulatory decisions based on insufficient data. This, in turn, will delay EPA's designations, which will cause delays in the implementation of appropriate attainment strategies and, according to EPA's estimates, ultimately jeopardize the lives of thousands of citizens annually. Therefore, we reiterate our recommendation that EPA accelerate the phase-in of, and expand the monitoring program for, PM<sub>2.5</sub>. Moreover, we emphasize our request for the agency to provide adequate additional, not reprogrammed, resources to fully fund this most critical effort.

Once again, we thank you for this opportunity to provide STAPPA and ALAPCO's views on this very important proposal. We look forward to continuing to work with EPA and other stakeholders as efforts to develop monitoring strategies and requirements continue.

Sincerely,

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